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THE ADMINISTRATION OF
PHYSICAL EDUCATION

By the Same Author

THE ORGANIZATION AND ADMINISTRATION
OF PLAYGROUNDS AND RECREATION
SPECTATORITIS

As Editor

Interpretations of Physical Education Series

VOL. I—MIND-BODY RELATIONSHIPS

VOL. II—NATURE AND SCOPE OF EXAMINA-
TIONS

VOL. III—CHARACTER EDUCATION
THROUGH PHYSICAL EDUCATION

VOL. IV—PHYSIOLOGICAL HEALTH

VOL. V—PROFESSIONAL PREPARATION

The Administration of Physical Education

*With special reference to
Public Schools*

BY

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PREFACE

This book is presented with some trepidation; first, because there is a possibility that it will be interpreted as a plea for big muscles as such and not as a plea for opportunities to acquire organic and impulsive power in order to better live and contribute to the fullness of life; second, that it may not set forth in a worthy manner to the school officials and the general public the tremendous educational opportunities in the individual and group physical education activities of children and the recreational activities of adults. This book rests on the four level philosophy of development which is set forth in the diagram on page 6. It stands on the principle that development is a product of activity; that organic power may be built; that neuro-muscular skills may be learned; that interpretive-cortical power may be gained; and, that right impulses and attitudes may be acquired as by-products of activity. The book rests upon the fact that the base of this inverted triangle is organic development and that the other levels of development are built upon this,—each level, however, presenting in addition to its foundation an emergent element which cannot be explained by an addition of parts. It is something new. The thesis rests on the theory of an activity drive, a neural unrest in inactivity which has served man in every crisis in evolutionary development. The active adjusting organisms capable of diversified responses live and the rest die. The further thesis is that unless man creates for himself, or has forced upon him by environment new activities which require responses, progress stops. In this four-fold development physical education activities, which largely fill childhood hours, form one of the most essential, if not *the* essential, means of education.

Acknowledgment is hereby made to my associates in administrative positions throughout the country for their generous help in providing the opportunity for me to study their procedures; to Professor Clark W. Hetherington for his inspiring philosophy of play and physical education; to Dean John W. Withers for the inspiration received in his classroom and for personal guidance; to Russell Forbes, Secretary of the Municipal Research League, for advice and guidance on legal and governmental procedures; to Miss Emma R. Frazier, for assistance in editing the manuscript; to Dr. Shailer Upton Lawton, for inspiration and guidance.

J. B. N.

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PART I. INTRODUCTION

CHAPTER I

DEFINITION OF TERMS

Does it work? is the eternal question mark which must be placed upon all theory. The phrase "It's good in theory but not in practice" is in itself a contradiction. Unless it works it is not good theory.

I. ADMINISTRATION OPERATES IN THE FIELD OF PRACTICE

Throughout the ages there has been built up a gulf between theory and practice and as this gulf widened those who theorized placed themselves upon a high pedestal and called themselves philosophers. From their high pinnacle they looked down upon those who engaged in practice. This great gulf between the philosopher and the artisan still exists.

Dewey, in his recent book, "The Quest for Certainty,"¹ indicates the historical background of this conflict between theory and practice. He shows how the philosophers spun fine theories of life. They tried the theories out in imagination and, seeing them work in this realm, assumed that they had established certainty. Little did they realize that they had short circuited the whole educative process. They did not allow the current to run through the field of practice, namely, experience.

The artisan, on the other hand, had to face life with its chaos of varying elements. He had to cope with these changing elements. He had to bear the "heat of the day." He had to be content many times with a limited degree of success and many times with downright failure. The practical worker could not predict certainty because he could not see all the relationships in the situation. He was, therefore, placed on a lower level by the philosophers and in the past ages he seems to have been willing to accept this position. To-day, however, we are beginning to recognize that certainty exists only in the realm of practice and the only certainty is uncertainty. Can we so study a situation that we can predict results? Can we predict what will happen when certain elements are combined in a situation? Only under such prediction have we any hope even for a degree of certainty.

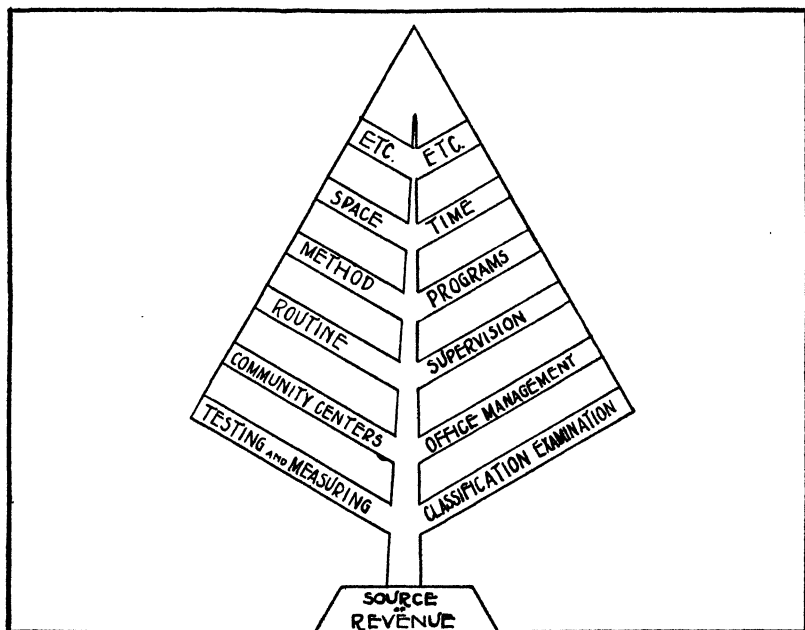
¹ John Dewey, *The Quest for Certainty*, Minton, Balch and Co., New York, 1929.

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Administration attempts to analyze situations, in the light of past experiences, in order to predict outcomes—it must determine what will work. Administration can not therefore be dogmatic. No two situations are exactly the same. Conditions will vary in different states and in different cities. Conditions may even vary in the same city from day to day. Administration must never become crystallized. It must be mobile. It must be fluid. It must be able to adjust to conditions. It must be able to analyze elements in situations. It must be able to predict outcomes with some degree of certainty.

II. LIMITS OF ADMINISTRATION

In the broadest sense, administration refers to a total outcome and all of the constituent parts that combine to produce that out-



Showing Administration as a Whole and its Specialized Phases

come. A city superintendent of schools, acting as the administrator, by and with the advice of a governing board and the people, becomes responsible for the entire educative process of the city school system. He is as much responsible for the total outcome as

the teacher is responsible for the educative process in a one room school. In this large city situation there is, however, organization, routine administration, business management, supervision and teaching.

We may say that administration as such puts in its appearance when the overhead or organizing tasks become so complicated that the individual teachers cannot carry these together with their teaching functions. The administrator, while responsible for the entire process, must recognize the needs of experts and must delegate responsibility to them. While final judgments are his, it would be foolish to proceed without the advice and help of these experts. Hence, we have in administration, executives, general supervisors, supervisors of special subjects, principals, business managers, teachers, etc. Administration might be likened to a great tree where each of the limbs represent special departments and the roots, sources of income. Routine administration represents the roots and trunk of the tree which make possible the "growing edge" which is teaching. Administration ties the whole together in a functioning unit.

III. PRINCIPLES IN ADMINISTRATION

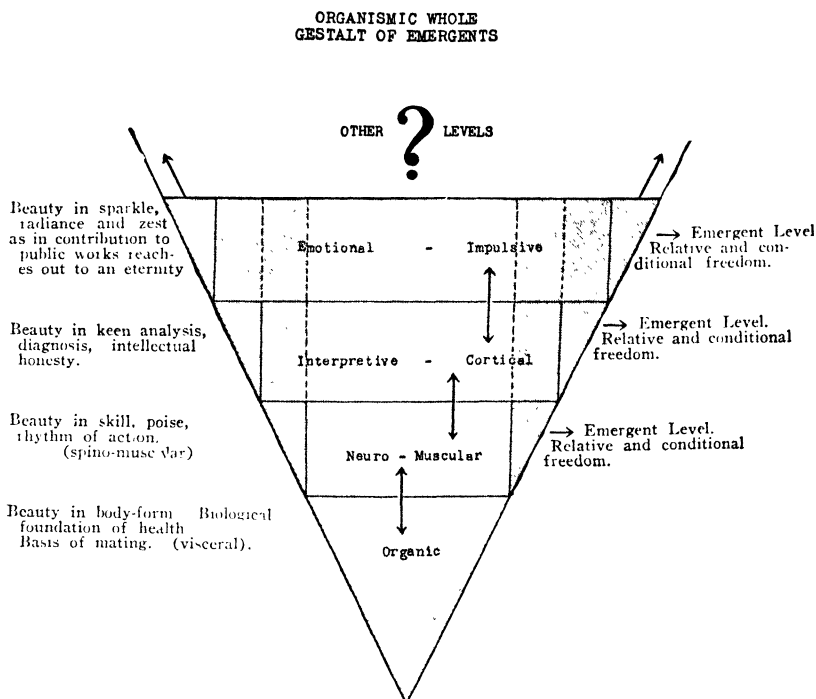
Can administration be divided up into component parts? Possibly it can but these must never be considered without always keeping in mind their relationship. The total result is one picture regardless of how many units make up the picture. It might, however, clarify the situation to think of administration in four parts, *setting objectives, clearing the path, routine administration, and checking results.*

A. Selecting Objectives. Certainly, administration must take the lead in selecting objectives. This need not necessarily be a "swivel chair" process. Objectives may be selected democratically. In other words, they may become group objectives. Democracy, after all, consists not only in taking every one into the plan but in taking every one into the planning. It is in the planning that there are growth possibilities. It is in the planning that a project becomes "ours" instead of "yours." It is because of the planning that the individual experiences the thrill of accomplishment.

B. Setting the Stage. A second responsibility of administration is in "clearing the path—in removing obstacles." In other words, administration is concerned with a myriad of details in organizing and running an institution. Facilities must be provided. This requires financial support. Leaders must be trained and must

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be supplied with equipment with which to conduct activities. These leaders or teachers must have all obstacles removed which interfere with the teaching process which is, more or less, a personal relationship between individuals. After objectives have been



established and obstacles in the path have been removed, administration must step aside and delegate responsibility.

C. Routine Administration. After objectives have been selected and the department is organized it will be necessary to set up a procedure for routine administration. Under this heading will be listed those daily, weekly, monthly and yearly procedures necessary for the operation of the entire program. This routine would have to do with the care of the plant, and the relationships

with pupils, principal and other administrative officers. It would, in other words, include the sum total of the duties required in the operation of a program of activities. This procedure is often designated simply as administration as compared to the word organization which is reserved for the setting of the stage referred to in the above section.

D. Checking Results. Administration must also check results. If responsibility is to be delegated, progress must be verified. Those who are in administrative positions must devise means of checking results in their own work as well as verifying those in the work of subordinates.

In checking results it is necessary to develop what might be called "dash-board indicators." These indicators are not significant in themselves but indicate what is going on in the strategic points of the car. In physical education, dash-board indicators, although insignificant in themselves, tell a story of relationship of pupil and teacher, of individual to individual. They point toward respect for property, toward willingness to cooperate and to sacrifice, and to standards of courtesy and happiness. A person can be judged and results measured by the dash-board indicators on his department or his policies.

IV. EXPLANATION OF SYMBOLS

It will be the purpose of this section to indicate the meanings of various terms and functions related to the central theme discussed in this book. The various symbols which are to be used here will be defined and illustrated and various relationships will be pointed out so that it will be possible for the reader and the author to converse in common terms.

Words are merely symbols for the expression of experience. Experience is recorded in terms of sense impressions. Inasmuch as no two people have exactly the same experiences it is not difficult to see that their interpretations of symbols will be different. Many symbols have meaning only in comparison. Such symbols are illustrated in the words—heavy, large, adequate, good, honest, etc. In order to have meanings in these instances comparisons must be made, such as—heavier than, larger than, etc.

Most symbols used in the field of æsthetics have to be learned and have only relative meanings. Thus the qualities of the symbol *beauty* take on meaning only in the light of experience by means of which an individual can make comparisons. Thus it is that not only exact symbols such as—an inch, an acre, a foot and a pound,

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take on meaning through experience, but also comparative symbols such as—loyalty, honesty, friendliness and beauty.

The use of symbols carries with it great dangers. It tends to limit and to distort thinking because symbols have meanings entirely in terms of one's experiences. The way in which symbols carry meanings can be illustrated by the child's learning the symbol *spoon*. About the age of one a child may be handed a spoon and the word *spoon* used at the time. The child feels this spoon, strikes the table with it and hears the noise it makes, tastes it and rubs it on his gums. A long period of sense impressions, coupled with the sound of the word *spoon*, are tied together. Later on when the word *spoon* is put on the blackboard the child immediately recognizes his old friend of the sense impressions. An individual using the word *spoon* may have in mind a wooden spoon or a paper spoon, yet one who has only used a silver spoon can interpret this symbol merely in terms of his experience. In a much wider sense terms which indicate relative value—friendliness, kindness and honesty must be interpreted in terms of one's experience. Here again thinking is stopped because of some narrow definition bounded by the range of an individual's experience. All meanings which symbols have with regard to other people must be looked at through one's experience. Hence, it becomes necessary not only to use symbols but to illustrate symbols and to agree upon the meanings of them before people can understand each other.

The word *clinic* is a very good example of a symbol which stops thinking in many people. Recently a large class was asked to visualize *clinic*. Practically every individual visualized a hospital, with rows of beds, in charge of nurses and doctors. This is a very good example where the use of the symbol stopped thinking in a narrow sense. Only one or two of the class visualized the word *clinic* as any situation in which an individual can accumulate a large amount of experience. In this larger sense the road-side garage is a clinic, the athletic field is a clinic, the classroom is a clinic and any individual, who through wide experience becomes skilled in sizing up a situation, becomes capable of making a diagnosis. In the particular field of one's clinical experience an opinion becomes very valuable, in fact it comes as near as is humanely possible to approaching finality or ultimate truth.

A skilled physician sizes up two situations which from a standpoint of all outward appearance are similar; but he says, "This man will live, that man will die," and he does it upon the basis of long experience. The administrator through long clinical experi-

ence builds a basis upon which to make judgments. If the administrator has been a keen observer and his experience has been broad, his judgments or, as some might say, his intelligent guesses take on real meaning. Handling complicated problems in his field becomes second nature to him.

A. Definitions of Terms and Functions.

1. *Administration.* Administration refers to the total process—the total function for which an organization exists. Administration becomes responsible for every detail and yet the administrator does not personally deal with details. Administration coördinates the functions of organization, management, supervision and teaching, so that the total learning process for the child, for which the entire school organization exists, will be facilitated. Administration becomes the roots and trunk of the tree. It furnishes the means for every specialized function. Administration departmentalizes, it designates responsibilities, it sustains. It is vitally interested in every arm but it cannot get lost in the arm. The organization functions as a whole; as in a tree, the roots cannot live alone, neither can the limbs, nor the leaves. Segregated they die. Together, under proper conditions, they function.

The teacher of a one-room school is, to a large extent, not only teacher but supervisor, manager, organizer and administrator. The various elements such as supervision and administration appear only when the details surrounding teaching become so involved that they interfere with the teaching process. Hence administration as a function will be referred to here as the total process. The total outcome in chemical terms is more than a mere addition of parts. The outcome is something new—it is an emergent—it has new qualities.

Administration will include organization, which might be thought of as setting up the machine, providing buildings, equipment, staff, etc. It will also include what is sometimes referred to as *routine administration*. By this is meant the running of the machine, the care of the buildings and equipment, office management, reports, etc.

2. *Supervision.* Supervision represents one of the arms of administration which concerns itself primarily with the improvement of instruction.

The supervisor is responsible to the administrator for the simple reason that the administrator is responsible for the total process. The supervisor stands in relationship to the superintendent

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much as the superintendent, to the board of education. Technically the board of education and the supervisor have no authority save that which is delegated to them. They must in turn become therefore their own advisers as to what their duties must be. As such, the supervisor of physical education and health becomes the expert adviser of the superintendent, principal and teacher. He is not directly in the hierarchy of the superintendent, principal and teacher, but stands on the side, as adviser. The supervisor will be requisite to the extent that the teacher, principal and administrator become convinced that his advice and help are indispensable.

3. *Teaching.* Teaching may be thought of as the process of controlling the activities of children in order to produce certain changes in their lives. Teaching involves more than merely learning facts—it assumes a change in behavior. At least two types of teaching must be recognized. One is the coaching type—the drill involved in learning the multiplication tables, chemical formulæ, the use of the tennis racket, or the technique in the drop-kick. To a large extent it involves an intimate contact of teacher and pupil. Another type is one in which the leader sets the stage and then withdraws from the scene. The child reacts to the situation. The possible values are inherent in the activities. Thus a skilled kindergarten teacher challenges a group of children by setting up situations. In like manner the chemistry teacher, the nature guide and the director of physical education, set up situations.

Not only are situations organized by expert leaders but in addition society sets up educational situations. The modern city provides many situations, the outcomes of which are unwholesome behavior. The railroad yards, the docks, the windows filled with plenty, the bootlegger driving in his high powered car, the drunkard on the street corner, the policeman raiding a “speak-easy,” all present situations in which behavior is affected. Society, however, does not guarantee that such behavior will be on a high level.

4. *Education.* Education may be thought of as the sum total of changes in behavior. As a process education refers to the participation in activities. As a product it refers to the total outcome.

5. *Schooling.* Schooling is referred to as the procedure which the institutional school has set up for the purpose of influencing the behavior of the child. Schooling should not be used synonymously with education.

6. *Physical Education.* Physical education is the administrative arm or the teaching division of education that is concerned with big muscle activities, vigorous total body activities, as distinct

from musical, manual and other divisions of educative activities. As such physical education represents a process.

7. *Health*. Health is a condition of the organism and as such represents one of the possible outcomes of properly selected activities. Health has only a relative meaning. Maximum health represents a condition wherein the human organism is functioning as near as possible to the *n*th degree of its capacity. Any devitalizing drains or emotional strains would act as handicaps. Maximum health assumes the highest possible body efficiency.

8. *Play*. Play is here referred to as any type of activity which carries its own drive or any activity, other than one of survival, eating, sleeping, breathing, etc., in which there is intrinsically a sufficient interest drive to make the individual want to do it. Thus, any developmental activities such as music; manual training; science, exact or social; as well as the tool subjects—reading, writing, and arithmetic—if properly presented represent play.

The total school curriculum must eventually be a challenge to children's interest in these fields. The total process, if properly presented in any of these activities becomes interesting. The breaking up of these interests into little compartments, each with its own rules and regulations, without any reference to the whole, becomes deadly. The time may yet come when children will clap their hands with the announcement that there is to be school on Saturday.

Play must be thought of in terms of power building on the organic, neuro-muscular, interpretive-cortical and emotional-impulsive levels. Play is the experience which offers the opportunity to build meanings of symbols. It is through play that the child creates. Power building is by and large completed by the end of adolescence.² From then on life organically is a slowly running down process—just an alarm clock unwinding. This is largely true also on the neuro-muscular level. On the impulsive level power building should continue much longer. Power building in the above sense stops because we develop an emotional sensitiveness which keeps us out of new activities. In other words we stop playing. We become self-conscious. We become sensitive to the glances of others and are afraid to fail. Hence such development is retarded. Play is stopped. We have reached the boundary of our emotional capacity. We have become slaves to little things—idiosyncrasies.

² Notable exceptions may be seen in men such as DeMar (page 111) who has been able to maintain a high power plateau. Power building on the neuro-muscular, interpretive-cortical and emotional-impulsive levels will proceed much longer.

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We do not feel as Saint Paul when he said, "I am a prisoner, not to little things, to my frailties, to my friends or my enemies. I am a prisoner of the Lord." Saint Paul had extended his emotional boundary to the *nth* degree.

Play should be thought of as entering into new interests and driving activities where new organic power can be built, new skills, new meanings, and new feelings. When one has reached the limit of his emotional capacity to do new things he dies, even though he may walk among us for fifty years.

9. *Recreation.* Recreation is an adult word which refers to re-creation or maintenance of power. It refers to the process of returning to equilibrium after the devitalizing strains of work or drudgery. Play is primarily creative, it is recorded in terms of development, it lays the foundation in the sense impressions for the entire adult point of departure. Recreation establishes an equilibrium, it does not build. Recreation refers to a re-combination of neuro connections made in play. These re-combinations are enjoyable because they are easy and bring satisfaction and social approval. The work of primitive man combined play and recreation.

10. *Objectives.* Objectives will be used synonymously with outcome, aims, etc. Objectives will be viewed from several standpoints:

a. Objectives from the Standpoint of Administration. Administration can set up certain objectives which are the tools with which to work. These objectives have to do with time in which to conduct activities, place in which to conduct activities, classification of children, classification and selection of activities and leadership. There might even be other routine objectives which administration could set up.

b. Objectives from the Standpoint of Society. Society must definitely have in mind philosophical objectives (page 16). These must consciously be kept before the leader. These objectives depend largely upon leadership; hence, society looks upon leadership as an objective because it is through leadership that it is possible to accomplish the desired results. While it is never possible to separate wholly these objectives into compartments they may be grouped for the purpose of analysis. While the objectives of health, character, etc., are to be kept constantly in mind by the leaders they should not be conscious goals to children. If they are acquired at all they must be by-products, for society must look upon these as remote objectives.

c. **Objectives from the Standpoint of the Child.** The child is not interested in the adult objectives. A child is interested in objectives close at hand. He is interested in accomplishments on the level of his ability. He is interested in the social approval of the immediate group in which he moves and has his being. He is therefore interested in activities. These activities of childhood constitute the physical education program. Society's objectives must emerge as by-products. They must be caught, not taught.

11. *Individual Activities.* Individual activities refer to prescriptions to meet specific individual needs as contrasted with group needs. These activities will be especially arranged for individuals who vary on any of the four levels sufficiently far from the group to demand individual attention.

12. *Instructional Physical Education Periods.* The physical education instructional period refers to the time allowed within the official school day for the teaching of physical education. This teaching will largely be by means of participation but special emphasis will be placed upon instruction.

13. *Laboratory Play Periods.* Laboratory play periods are referred to as time at noon, recess, after-school and non-school days when the activities taught in the instructional period will be entered into under supervision. The emphasis will be upon participation but at the same time there will be some instruction.

14. *Whole Method of Teaching.* The whole method of teaching refers to a teaching procedure where the game is taught by means of participation in the activity itself—where the game is taught by playing it. Specific skills are acquired as by-products.

15. *Part Method of Teaching.* The part method of teaching refers to a procedure whereby activities analyzed into parts which are practiced. Later when skill has been acquired in the parts they are combined into the complete activity.

16. *Four Levels of Development.* The four levels of development refer to the organic, neuro-muscular, interpretive-cortical and emotional-impulsive phases of development as set forth in the figure on page 6.

17. *Gestalt.* Gestalt refers to the total process—stimulus, and outcome. It refers to the response of the organismic whole to the total environment. It is a configuration—the summation of all parts into a one unified thing.

18. *Emergent.* The word *emergent* is referred to as the result of a combination of elements whereby the product of this combination is more than a mere addition but is of itself a new

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thing with totally different characteristics which cannot be accounted for by a mere addition of parts only. As an example, two atoms of hydrogen and one atom of oxygen form water which becomes an emergent. Water has qualities which cannot be fully explained by any of its parts.

19. *Variation.* Variation is referred to as a tendency of individuals to vary in any of their characteristics on the normal distribution curve. This variation may be on any of the four levels of development (page 6).

20. *Playground.* The word *playground* is used to symbolize all of the open spaces where various types of physical education activities—games, athletics, self-testing activities, dancing, swimming, scouting, manual training, and music are conducted in a spirit of freedom.

21. *Recreation Center.* The term *recreation center* will be used in a slightly broader sense than the word *playground*. It will refer to a center which has sufficient indoor facilities to conduct a program of activities for an evening and for inclement weather, for adults as well as children, with particular emphasis on the family group. It will be assumed that the program will include, beyond the play of big muscle type, opportunities for some or all of the musical, manual, dramatic and other phases of developmental activities.

22. *Growth.* Growth will here be used in the sense of increased body mass, the process of growing from littleness to bigness or from a child to an adult.

23. *Development.* Development will here be referred to as the status of an individual measured by standards acquired partly through an hereditary impetus but largely through the result of activity. The four levels of development are illustrated on page 6.

24. *Standards.* Standards are referred to as the upper quartile of the scale of development referred to above.

25. *Environment.* Environment is referred to as opportunity. It will be influential in so far as an individual reacts toward it. Unless an individual is aggressive, libraries, art galleries and the educational opportunities of a civilization mean nothing. One may be a caretaker in an art gallery for life and yet not be affected by the art. If opportunities in an environment are to be of any value to the individual he must be aggressive.

26. *Heredity.* Heredity is that which one generation passes on to another in the great relay which forms the *parade of the*

living. Heredity sets ultimate capacities and furnishes the fundamental drives, pushes, urges and hungers which color life. It forms the grooves in which an individual may move but out of which he may not step.

27. *Hereditary Drive.* Hereditary drive is the push, the urge, the hunger, the "prepotent reflex," which an individual inherits.

28. *Capacity.* Capacity refers to the ultimate possibilities to which an individual can develop in the light of the limitations of his heredity.

29. *Educability.* Educability refers to the degree and the ease with which change may be made in the behavior of an organism.

30. *Activity.* Activities are the sum total of an individual's inherited or learned reactions to situations. These activities may be thought of not only in terms of the organic level (page 6) but in terms of neuro-muscular, interpretive-cortical and emotional-impulsive levels.

31. *Character.* Character is used synonymously with the word personality and refers to the total behavior of an individual.

32. *Attitudes, Impulses and Emotions.* Attitudes, impulses and emotions, are referred to as the drives—*Bewusstseinlager*—of an individual which impel him to act. The basis for these may be inherited or learned. Once having been established, however, they limit the boundaries of an individual's behavior.

33. *Prejudice.* Prejudice is an attitude colored by an emotion on the lower end of the scale of social values. It is a mold which limits thinking and feeling.

34. *Principles.* Principles which guide the conduct of an individual are here referred to as attitudes which are largely a product of an individual's experience.

35. *Course of Study.* The term *course of study* will be referred to as an organization of activities within a limited field, arranged for the purpose of challenging a group of individuals, for example, general science, chemistry, physical education, and home economics from the standpoint of the public school.

36. *Curriculum.* Curriculum refers to the group of courses of study arranged with special reference to ultimate outcomes such as medicine, law, and teaching in the various specialized lines of professional training.

CHAPTER II

THE RELATIONSHIP OF PHYSICAL EDUCATION TO GENERAL EDUCATION

Education may well be thought of as an organization of activities whereby children may learn the lessons of life, in a natural way, under friendly guidance, in an atmosphere of freedom and in accordance with age and capacity needs.¹

I. THE IMPLICATIONS OF EDUCATION ^{2, 3}

The implications in this definition are broad and will be taken up in some detail. They are particularly significant as we are to consider the contributions of physical education to general education.

A. Education, a Process and a Product. It is evident that education must be viewed both from the standpoint of a *process* and a *product*. As a process education is a doing phenomenon—a day-by-day procedure. In this sense education must be looked upon as doing. Education must also be viewed as a product, an outcome, or a sum total of the behavior changes produced in the individual.

B. Education is a Going-on Process. Education is an activity phenomenon. In this connection the word activity must be viewed in a very broad sense. Professor Hetherington includes under the terminology of activity all the movements of the organism, all thinking and feeling involved in learning.⁴ This broad definition of activity is also implied by Professor Bonser, who says, "I regard life as made up of activities of behavior (including thought and feeling elements no less than overt action) each of which is of

¹ Progressive Education means learning the lessons of life naturally under friendly guidance in an environment of freedom suited to the age of the learner.—Definition by Progressive Education Association, 10 Jackson Place, Washington, D. C.

² *Objectives of Education*, National Society for the Study of Educational Sociology, Second Yearbook, Bureau of Publications, Teachers College, Columbia University, New York, 1929.

³ Herman H. Horne, "Again the New Education," reprinted from the *Educational Review*, Vol. LXXV, No. 2, February, 1928, p. 91.

⁴ Clark W. Hetherington, *School Program in Physical Education*, World Book Co., Yonkers-on-the-Hudson, New York, 1922, p. 1.

worth in just the degree that it contributes to social survival. By survival, I mean continuity and length of life."⁵

Thinking is an activity, feeling is an activity and even the play of imagination is an activity. Activity thus becomes a vital force controlling results in human life.

C. Education is an Activity Phenomenon. From the standpoint of clarifying this situation it is necessary to explain what is meant by the word *activity*.⁶

1. *The Activity Drive.* Activities constitute one of the great hungers of life under which, probably, will have to be classified food hunger, sex hunger, play hunger, etc. Watson says, "Ceaseless stimulation, ceaseless movement are the order by day and by night. Not even in sleep is the organism unassailable by stimulation nor is it ever motionless."⁷

This activity drive has deep biological significance for it is altogether probable that because of this tremendous activity drive there has developed the highly integrated nervous system of modern man.⁸

Looking at the body of man purely as an organic structure and viewing it in the light of evolution, it becomes clear that structure has been built under stress of function. In words of the old axiom it is evident that necessity is the mother of invention. The organism has adjusted itself to most changing conditions. This assumes, and there is considerable proof of it, that the organism has developed under the stress of emergency.⁹

If we can picture a lower organism with no enemies and plenty of food, we have an example of one which did not or probably would not have to tax itself to the limit in meeting emergencies. This organism could send messages from one part of the body to another by means of irritation.¹⁰ Suppose it were called upon to meet changed conditions? We shall probably herein find the cause for certain adjustments.¹¹ In the first place if we imagine another

⁵ Frederick G. Bonser, *The Curriculum and Curriculum-Making*, National Society for the Study of Education, Twenty-sixth Yearbook, Part II, Public School Publishing Co., Bloomington, Illinois, 1930, pp. 57-69.

⁶ John Hadgdon Bradley, Jr., *Parade of the Living*, Coward-McCann, Inc., New York, 1930, pp. 75 and 286.

⁷ John B. Watson, *Behaviorism*, W. W. Norton and Co., New York, 1925, p. 161.

⁸ Charles S. Sherrington, *Integration Actions of the Nervous System*, Yale University Press, New Haven, 1911.

⁹ John Mason Tyler, *Growth and Education*, Houghton Mifflin Co., New York, 1907, p. 39.

¹⁰ *Ibid.*, p. 30.

¹¹ John Hadgdon Bradley, Jr., *op. cit*

animal developing which particularly desired the former for food or, if there becomes a scarcity of the particular variety of food which this organism desired, we see that an emergency has arisen in its life. Either it moves faster to get away from its enemies or to procure food which it desires or it ceases to exist and hence reproduces none of its kind. This necessity for a better integration of the various parts of the organism was the stimulating source which, through natural selection brought about the highly developed nervous system. In other words it was function which at least indirectly made the structure and necessity which became the mother of invention by perfecting mutations and selecting biological strains.

The protozoa carries on all of the vital organic functions by means of one or, at most, a few cells.¹² Potentially there must be present in these cells the specialization of function which we see in many cellular organisms. While nerves, as such, are not present and will not appear until the cœlenterate level, potentialities of nerve cells must be present or they would never develop.¹³ A single cell is susceptible to rays of light. In other words the cell is photo sensitive. The cell differentiates between light and darkness. We do of course know that in the lower organisms all of the principal mechanisms present are centered in those of reproduction and digestion. From these basic mechanisms undoubtedly activity called forth specialized functions which the higher animals possess.

Thus we see that activity becomes the stimulating source or the means of development. This is probably what Colvin had in mind when he said, "Thus learning develops as there is a need and in direct response to this need."¹⁴ Likewise it is probably what Tyler had in mind, "It was sensation and motion, not thought or learning which laid the foundations of the brain and stimulated development of all its centers."¹⁵ Robinson supports this contention in what he calls curiosity. He said specifically, "A creature

¹² Fernand Lagrange, *Physiology of Bodily Exercise*, D. Appleton and Co., New York, 1905, p. 17.

¹³ Kofoid, Calkins and others have demonstrated structures in many protozoa which, although they do not stain as nervous tissue *per se*, seem to subserve the function of integrative control. There are several non-cellular enlargements, perhaps comparable to ganglia as found in higher forms. From these enlargements which always occur in the head end of the cell radiating cables extend *caudad*. This conducting system may be regarded as an *anlagal* nervous system of the ganglionic nerve—net type. It is just possible that better staining methods may demonstrate such morphological entities in many other relatively simple organisms.

¹⁴ Sheldon Colvin, *The Learning Process*, The Macmillan Co., New York, 1921, p. 16.

¹⁵ John Mason Tyler, *op. cit.*, p. 11.

which lacked curiosity and had no tendency to fumble could never have developed civilization and human intelligence.”¹⁶ It is this quest for new experience, this restlessness, this ceaseless curiosity, this continual drive which forms the background and constitutes the essence of what we characterize as this activity drive. Thrasher in his study of gangs calls it, “the quest for new experience.”¹⁷

The particular biological significance of this drive should not be lost. It is this drive which we call activity, plus the laws of natural selection, that has been the stimulating source which has brought about the highly integrated nervous system. This highly integrated nervous system finds a real necessity for a *boss ganglion* which we come to know as the cerebral cortex. These three things: activity, the development of the nervous system, and the growth of the cortex, have been associated, in the primates and especially in man, with two additional factors, namely, a long period of infancy and the necessity for long years of parental care. Many animals live as long as man, but few of them have the length of childhood of man.¹⁸ The horse or the dog is fully developed in a few years, while nature takes many years to develop man. Viewing the relationship of activities to learning it is well to visualize just what happens in the nervous system.¹⁹

Activities may be thought of synonymously with experience. It is activity to which, under various circumstances, organisms have been exposed that has made necessary the highly integrated nervous system and the delicate sense mechanisms of the body. Function or, in other words necessity, or varied activity has actually dragged forth new structures.

2. *All Activities Involve Total Body.* Before proceeding further it will be necessary to analyze the relationship between what has been formerly known as physical activities and mental activities. Do we have a clear conception of the relationship between physical and mental activities?

There is no such thing as a physical activity without a mental counterpart or, on the other hand, a mental activity without a physical counterpart.²⁰ A division of mental and physical has

¹⁶ James Harvey Robinson, *The Mind in the Making*, Harper and Brothers, New York, 1921, p. 69.

¹⁷ Frederic Thrasher, *The Gang*, University of Chicago Press, Chicago, 1927, p. 159.

¹⁸ John Fiske, *The Meaning of Infancy*, Houghton Mifflin Co., New York, 1911.

¹⁹ Acheley states that the period of gestation, the age of puberty, the climacteric period, and the life span are almost the same in gorillas as in man.

²⁰ It is not intended to intimate that there is any correlation between “mental” and “physical” growth. We here refer to function.

brought about a number of unfortunate philosophies, primary among which are asceticism, scholasticism and Puritanism.

The extent to which asceticism is dominant in our thinking is probably little known. We talk about the development of man mentally, morally and physically assuming that they represent separate processes. This indicates a survival of the philosophy which almost completely separated the mental from the physical. It seems difficult for many people to realize that mental processes, sense impressions, and thinking are carried on by means of the physical mechanisms—chief among which is the nervous system. The idea that the body is a *dead weight* holding down the mental and that from time to time it must be taken in hand, is deep seated.

We are likewise deeply affected by the philosophy of scholasticism which puts great emphasis upon knowing and slight emphasis upon feeling. Our everyday procedure in the public schools indicates that we believe if children know facts their conduct will be regulated by their knowledge. It is difficult for us to see how almost every one rides roughshod over facts in order to satisfy certain feelings. There is little doubt that our conduct is primarily affected by feelings and emotions rather than cold facts and that the business of society is the development of right feeling.

Puritanism undoubtedly holds sway in the thinking of many people. In spite of the many good things which the Puritan philosophy upheld, it has done infinite harm in its fear of joy. That carry-over is strong to-day in a deep feeling in the minds of many people that if they really enjoy a thing it must be wicked. Puritanism has a close tie-up with asceticism because joy to the Puritan meant pampering the body which, it was assumed, ran counter to the spiritual ideal.

The real place of joy in life is just being realized. It is of course necessary to realize that there are temporary *blind alley* types of joys which eventually lead to *dust in the mouth*. On the other hand it must be realized that there are *open trail joys* which come from serving and being a real help to other people in life situations. This place of joy is now being recognized by our biologists as being essential both to normal growth and to development in the child.

All activities involve both mental and physical reactions. Jennings says:

The outward evidence of the natural and complete unfolding of the young child is given in its physical development. The practical rule which we must

follow is to keep the little creature growing, physically developing in a healthy way. Our method of education has been largely influenced by one of the most malignant of the superstitions of the dark ages; by the idea that spiritual and intellectual development is in conflict with physical development; that the elevation of the mental requires the debasement of the physical. We know now, as we know any other fact of science, that this is cruelly false.²¹

This is again reënforced by Tyler: •

The relation between the muscular and nervous system expresses itself through some change in the muscles; and every movement of our muscles reacts upon our nerve-centers. The two really form one great system, and it is only for the sake of convenience that we consider them separately.²²

Robinson says:

The sharp distinction between the mind and the body is a very ancient and spontaneous, uncritical, savage prepossession. What we think of as "mind" is so intimately associated with what we call "body" that we are coming to realize that one cannot be understood without the other. Every thought reverberates through the body, and on the other hand, alterations in our physical condition affect our whole attitude of mind.²³

It must be assumed that activities vary on a scale as to their mental and physical content, some requiring a high degree of big muscle activity as over against a low degree of muscular activity. Other activities require a high degree as compared to a low degree of interpretive thinking. But all activities are *total body*—muscular, interpretive and emotional.

D. What Lessons of Life Does the Definition of Education Imply? Another implication in the definition of education is that concerned with the total behavior of the individual. Education is a product—a sum total of behavior changes. It is necessary for the very preservation of society that the outcomes of the educational process, these lessons of life, be sufficiently high on the social value scale that society may not only be preserved but raised to higher levels.

These lessons of life can never be separated into component parts because life must always be viewed as a whole. However, for the purpose of analysis it may be well to consider what men think of as the component parts of this whole. Dr. P. E. Belting of the University of Iowa has arranged the following:

²¹ Herbert S. Jennings, *Suggestions of Modern Science Concerning Education*, The Macmillan Co., New York, 19211, p. 22.

²² John Mason Tyler, *op. cit.*, p. 69.

²³ James Harvey Robinson, *op. cit.*, p. 34.

TABLE I
EDUCATIONAL OBJECTIVES OF PROMINENT LEADERS

<i>Snedden</i>	<i>Bagley</i>	<i>Bobbit</i>	<i>Bonser</i>	<i>Meriam</i>
Physical education	Bread and butter	Development and maintenance of physical power	Maintaining health by care of body	Health by play
Vocational education	Social efficiency	Labor of calling—practical labor	Producing and exchanging necessities	Home and community efficiency
Social education	Culture	Parental activities	Cooperation for common good	Home usefulness
Cultural education	Knowledge habits	Intercommunication citizenship	Leisure enjoyment	Social efficiency Play
	Attitudes, tastes, prejudices	Social relations	Knowledge habits—appreciation	Knowledge habits—attitudes
	Ethical and moral character	Leisure, recreation, amusement		Moral conduct Play
		Development and maintenance of mental efficiency		
		Religious activities		

<i>Spencer</i>	<i>Inglis</i>	<i>Dewey</i>	<i>Small</i>	<i>Kilpatrick</i>
Self-preservation	Economic vocational	Executive competency	Health	Health habits and attitudes
Indirect preservation	Social civic Individual avocation	Sociability—sensitivity to rights and claims of others	Wealth	Vocational efficiency
Parenthood		Trained intellectual method	Sociability	Citizenship
Social relations		Æsthetic taste	Knowledge	Leisure
Leisure activity		Growth	Righteousness	Knowledge habits and attitudes
Knowledge of intrinsic value			Activity leads to further activity	Moral
Science				
Knowledge semi-intrinsic				
Conventions				

The National Education Association has stated the aims of secondary education as (1) health, (2) vocation for livelihood, (3) worthy home membership, (4) good citizenship, (5) worthy use of leisure time, (6) command of fundamental processes and (7) ethical character.

Whether we set up seven cardinal principles, seventy-seven principles or seven hundred and seventy-seven principles there will always be one more as long as life is life. However, physical education subscribes to these objectives and sets up none beyond those of general education.

The outcomes of education are usually thought of in terms of quality. When we think of an educated person it is in terms of quality. The author submitted to several classes, totaling over five hundred members, the proposition of judging such qualities as they considered synonymous with education. Each member of the class was asked to name the qualities of five men and five women whom he most admired namely, whom he considered educated. The following table presents the ten qualities most frequently mentioned:

TABLE II

DESIRABLE EDUCATIONAL OUTCOMES IN TERMS OF QUALITY TRAITS

Women's Viewpoint of Women

1. Unselfish
2. Good disposition
3. Sense of humor
4. Tolerant
5. Intelligent
6. Sincere
7. Social
8. Generous
9. Sympathetic
10. Poised

Women's Viewpoint of Men

1. Intelligent
2. Tolerant
3. Sense of humor
4. Good disposition
5. Social
6. Honest
7. Generous
8. Tolerant
9. Kind
10. Courteous

Men's Viewpoint of Women

1. Social
2. Courteous
3. Sympathetic
4. Considerate
5. Loyal
6. Neat
7. Generous
8. Tactful
9. Intelligent
10. Sincere

Men's Viewpoint of Men

1. Social
2. Loyal
3. Helpful
4. Good disposition
5. Kind
6. Sympathetic
7. Tactful
8. Intelligent
9. Dependable
10. Sincere

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It is interesting to note that the men and women selected in the table on page 23 were as a rule over thirty years of age and occupied relatively obscure positions in life. Apparently success and education are not thought of synonymously by most people. These lessons of life are by-products of activities, caught rather than taught. The physical education play life of childhood offers remarkable opportunities to effect these desirable changes.

The particular lessons of life which may best be brought about through physical education activities will be treated more fully on page 103.

E. Education Must Proceed in a Natural Way. Education has always gone on from day to day in a manner unpremeditated and without organized direction. Miller says, "The greater part of folk usages is imbibed naturally and spontaneously, without benefit of direction or training."²⁴ In primitive society the type of life was sufficiently simple so that it was possible for children to pick up naturally all the education they needed. The leadership element was present, however, although it was not considered consciously. Education in primitive life was primarily an imitative process.

This early education had its advantages and disadvantages. No special time was needed to be set aside and designated as an educational period, either as a portion of one day, or as a portion of a year. It had an advantage in that the child was interested in the process. In a word, the whole process was a play program. The child played at particular skills. This play-practice resulted in the child eventually becoming proficient. Attitudes and impulses were established as by-products of the activities. This primitive leadership method had its disadvantages in so far as it tended to produce a static civilization. The tendency was for the child to accept, without question, the customary ways of doing things as established once and for all. Progress was therefore slow.

This informal process of education has deep biological roots. It is a natural process in animal life. Groos gives many examples of what is apparently the conscious effort on the part of the animals to teach their offspring.²⁵ He points out that many birds must be taught to fly, the tiny bird being too timid to trust itself

²⁴ Nathan Miller, "Primitive Education," *The Journal of Educational Sociology*, Vol. II, September, 1928, p. 40.

²⁵ Karl Groos, *The Play of Animals*, D. Appleton and Co., New York, 1898, Chapter III.

in the air. He describes in detail the process in the early flying lessons of young storks:

As soon as the young birds can stand firmly and get to the edge of the nest, preparations for flight begin. Flapping their wings, they move round the nest, at first without rising above it. Then with a kind of hop they go a little higher, always hovering over the nest and keeping up this climbing process until they are at least hovering a half minute or longer, after which they anxiously cling to the horizontal projection of the nest. Only when this has been repeated several times do they break the magic circle, gliding boldly out into the open air, describing in their flight a circle fifty or sixty meters in diameter, above the nest. They repeat this once, and then either fly back to the nest or rest on some neighboring roof. At the end of July or the beginning of August begins the practice in high flying preparatory to the great migration.²⁶

Darwin calls attention to two species of wolves which have been reared by dogs. They learned to bark.²⁷ Dogs brought up by cats learn to do many things which are done by their foster parents. Puppies nursed by cats learn to lick their feet. These examples might be multiplied by any careful observer. The particular point of orientation is that after a time a young animal imitates the movements of its elders seemingly without any aim beyond the unconscious one of practice. The animal indulges in playful activity. It is an educative process. This type of unconscious procedure becomes very conspicuous as we view the child in primitive society.

The child's education is primarily one of imitation. Miller says:

The social heritage, that is, the continuity of the folk life and feeling for social cohesion is kept alive by the transference to the child of the folkways, tools, processes, practices, and institutionalized beliefs of his forbears. The material furnished by ethnography is unmistakably clear on this point, that the bulk of the education of the primitive child is unpremeditated and casual. Set down in a particular culture-complex, the definite component parts of culture adhere to the child as a magnet draws to its steel filings or as seaweed attaches itself to a piece of wreckage. Upon this background and in the degree that the folkways and *mores* are slowly elaborated, the reflexes or social habits of the child are definitely and overtly conditioned by purposive measures undertaken by the folk.²⁸

Several specific examples may be cited. Only a casual glance

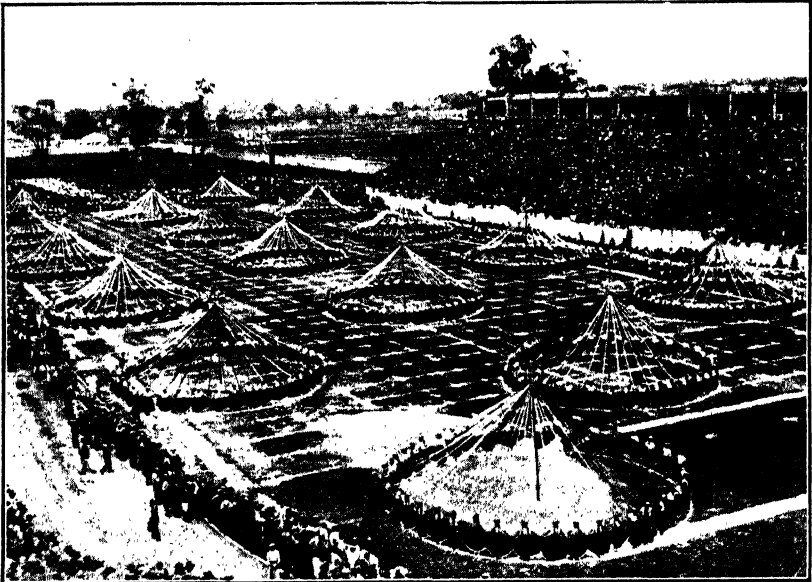
²⁶ *Ibid.*, p. 104.

²⁷ Charles Darwin, *Descent of Man*, D. Appleton and Co., New York, 1874, p. 42.

²⁸ Nathan Miller, *op. cit.*, pp. 38-39.

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at the present organization of our Indian Pueblos of New Mexico would show the validity of this principle. Until the coming of the white man these Pueblos had no institutional education to correspond to a school. Their education was acquired in this natural process. Boys made their miniature bows and arrows and practiced archery. They watched their elders work with clay and they became apt in modeling pots. They accompanied their elders on the hunt, watched them build fires, watched them stalk game, pre-



Courtesy of Wide World Photos.

Mexican School Children in Pageant

serve meat, make a lean-to, make beds and, later, cure hides, make clothing, moccasins and tom-toms. These activities were imitated.

The Tshi natives of West Africa have a proverb, "No one teaches the smith's son his trade; when he is ready to work, God shows him the way."

In primitive life dolls and rain-gods of various kinds are made for various ceremonies. They are so made and adorned that the child becomes familiar with complicated symbolic marks, ornaments, and garments worn during tribal and religious ceremonies. By copying the figures which represent mythical personages, the child learns the meanings of these customs of the tribe. Imitative

play in primitive culture becomes a most adequate introduction to life. Imitation then becomes the indispensable medium by which primitive culture is made, continued, and preserved.

Life has been changed—things must go on according to custom. Social ridicule is the weapon to enforce this. Margaret Mead calls attention to this in the custom of Samoa:

The seventeen-year-old boy is not left passively to his own devices. He has learned the rudiments of fishing, he can take a dug-out canoe over the reef safely, or manage the stern paddle in a bonito boat. He can plant taro or transplant cocoanut, husk cocoanuts on a stake and cut meat out with one deft, quick turn of the knife. Now at seventeen or eighteen he is thrust into the Aumaga, the society of the young men and the older men without titles, the group that is called, not in euphuism but in sober fact, "the strength of the village." Here he is badgered into efficiency by rivalry, precept and example. The older chiefs who supervise the activities of the Aumaga gaze equally sternly upon backslidings and upon any undue precocity.²⁹

Ellwood believes that some of this leadership is a biological variation. "Even among savages higher intellectual ability is one of the things which count most in social leadership. In part, the genius or man of great intellectual ability is doubtless a product of biological variation."³⁰

"It is thus well organized people who progressed."³¹ Sumner forcefully points out:

Need was the first experience, and it was followed at once by a blundering effort to satisfy it. Need was the impelling force. The struggle to maintain existence was not carried on individually but in groups. Each profited by the other's experience. All at last adopted the same way for the same purpose; hence, the ways turned into customs and became mass phenomenon. Instincts were developed in connection with them. In this way folkways arise. The young learn them by tradition, imitation, and authority. The folkways, at a time, provide for all the needs of life then and there. They are uniform, universal in the group, imperative, and invariable.³²

According to Webster in his "Primitive Secret Societies," leadership has been exerted from time immemorial in primitive tribal life. The initiation ceremony administered to young men in the tribe is for the purpose of preparing them for adulthood, of

²⁹ Margaret Mead, *Coming of Age in Samoa*. William Morrow and Co., New York, 1926, pp. 33-34.

³⁰ Charles A. Ellwood, *Psychology of Human Society*, D. Appleton and Co., New York, 1926, p. 105.

³¹ James Mickel Williams, *Our Rural Heritage*, A. A. Knopf, New York, 1925, Introduction, p. xv.

³² William Graham Sumner, *Folkways*, Ginn and Co., Boston, 1907, p. 2.

weeding out the unfit who would prove to be a burden to the tribe, and of keeping the young men in a state of subjection to their elders. Leadership is exerted by the elders and later by the chiefs of the tribes. Initiation rites usually take place during puberty or at its onset. Girls too are initiated, usually not so strenuously or elaborately, although in some African tribes these procedures are as elaborate as are those for boys.

The Indians of America had ceremonies in the Colonial days. In Africa, New Guinea, Brazil, and parts of Australia, rites still persist among the primitive peoples.³³

It was only as society became complicated that it became necessary to introduce institutional types of education. The school is society's care. Institutional education should not be contrasted to natural education but it should be society's organized method of making the *natural opportunities universal*.

F. Education Must Proceed Under Friendly Guidance. The valuable outcomes of education are really by-products. Most of the things which have been thought of as education—reading, writing, arithmetic, Latin, etc.—are merely tools. Education must be viewed in terms of quality. Quality can be acquired only under friendly guidance. There are some things in the world that cannot be forced. It is not possible to have a society for the compulsory enforcement of good fellowship. The real educational outcomes are *caught* not *taught*. Kilpatrick indicates that the word *learn* must not be used in a narrow sense. "To learn is to change one's ways of behaving."³⁴

Leadership must be friendly because we do not catch desirable types of behavior from people whom we do not admire. The mere occupying a position of authority does not indicate leadership—leadership must be won. Education must proceed under friendly guidance.

G. Education Must Proceed in an Atmosphere of Freedom. An atmosphere of freedom is implied in the former discussion of friendly guidance. Allport indicates that one of our prepotent reflexes is resisting oppression. This situation can be noted on every hand not only in connection with the school but in connection with industry.³⁵ Freedom without guidance may result merely in

³³ Hutton Webster, *Primitive Secret Societies*, The Macmillan Co., New York, 1908.

³⁴ William H. Kilpatrick, *The Foundations of Curriculum-Making*, National Society for the Study of Education, Twenty-sixth Yearbook, Part III, Public School Publishing Co., Bloomington, Illinois, 1930.

³⁵ Henri De Man, *Joy in Work*, Henry Holt and Co., New York, 1927.

slovenly behavior. Freedom with guidance, however, means presenting the individual with challenging situations.

H. Activities Must be Suited to Age and Capacity Needs. The final implication of the definition of education is that activities must be classified in accordance with age and capacity needs. This is a fundamental principle of education. In connection with all activities interest rests upon a thin knife edge—challenge on one side and chance of success on the other. No one is interested in activities unless they represent a challenge. There must be a chance of defeat in order to challenge.

Life has always represented a challenge. In primitive life it was the challenge of *getting food* and *keeping from being food*. Since life has somewhat moved away from a merely survival atmosphere the challenge now has to do with achievements which may *receive social approval*. Education is then a continued process of challenging individuals. It depends upon the *capacity* and *past experience* of an individual as to whether or not he is challenged. The challenge becomes a mere echo unless the individual can see the goal. Hence learning must proceed to the point where the individual is within reach of success.

If social approval is assured then the individual within the reach of probable success accepts the challenge. Thus all life becomes a game. Any activity becomes a game if the chances of success and failure are properly balanced. A game is an activity challenge in which the chances of success and failure are so evenly matched that when an individual or group, through qualities inherited or learned, throws the balance in favor of success and thus wins social approval, there is great satisfaction in the achievement.

Any activity may be a game—collecting stamps, run sheep run, making a radio, classifying leaves and building a boat.

II. PHYSICAL EDUCATION AND HEALTH

What then is the place of physical education and health in education as a process and as a product? What are their relationships and their contributions to general education?

A. Physical Education Defined—a Process. Briefly, physical education is the administrative or teaching division of education that is concerned with the vigorous total body activities as distinct from the manual, musical and science activities and the tool subjects. The phrase *total body* is used because in physical education, more than in any other activities, the *total body* is functioning;

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that is, the muscular mechanisms as well as the neuro-affective mechanisms are functioning.

B. Physical Education Illustrated. A conception of present-day physical education may be gained by visualizing the activities on the playground together with the aims of a trained leader directing these activities. The word playground must not be used in a narrow sense. It must be used to symbolize all of the places where total body activities may be organized. It must symbolize the schoolyard, the gymnasium, the swimming pool, the vacant lot, the camp, the play room, the back yard, the roof garden, the garden court, or any space indoors or out-of-doors in which activities—dancing, swimming, self-testing activities, athletics, or plays and games, may be carried on. It is highly important also that the conception of the physical education plant be enlarged to include not only these facilities of the gymnasium but all of the outdoor space which is available for big muscle activity.

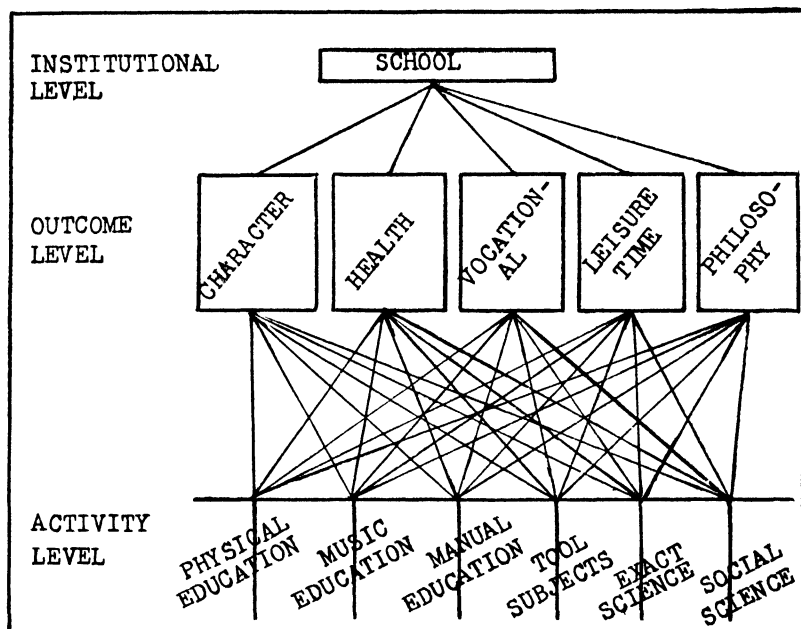
It must be apparent that the word *physical* education is not a happily chosen term, in fact it is a misnomer. As we have already indicated there is no such thing as physical activity as contrasted to mental activity or any other kind of activity. Because of the unhappy relationship which *physical* education brings up in the mind of the lay person, as well as in the minds of many school administrators, it may be necessary to rename this type of educational activity. The Fourth Yearbook of the Department of Superintendence suggests the name "big brain muscle activities."³⁶ The Twenty-eighth Yearbook of the National Society for the Study of Education suggests the name "full body activities."³⁷ Others have suggested "fundamental education," because of the fact that the activities of a physical education program constitute such a large proportion of the activities of early childhood. The word *total-body* activities carries all the implications of physical or big muscle and the mental or interpretive phases of activity. It is immediately apparent that most of these names are opportune because of the fact that every phase of activity has its *physical* and its *mental* aspects. Singing, building a radio, classifying leaves, conversation, thinking, as well as running and jumping represent the total functioning of an organism. All of the activities must be

³⁶ *The Nation at Work on the Public School Education*, National Education Association, Fourth Yearbook, Department of Superintendence, Washington, D. C., 1926, p. 227.

³⁷ *Preschool and Parental Education*, National Society for the Study of Education, Twenty-eighth Yearbook, Public School Publishing Co., Bloomington, Illinois, 1929, p. 695.

viewed from the bio-physical, bio-chemical, and neuro-emotional standpoints.

The following diagram indicates the administrative relationship of physical education activities to other activities in the total school program:



Relationship of Activities and Outcomes

C. Health—One Desirable Outcome of Physical Education Defined. In contrast to physical education as an activity we must view health as an objective or outcome. Health and physical education have very definite relationships.³⁸ Physical education must always be thought of, however, as a group of activities which under leadership may be utilized to gain desirable outcomes. One of these desirable outcomes is health.

There are many reasons why health and physical education cannot and should not be synonymous. In the first place physical education is not the only activity arm of the public school which has health objectives. In fact every one of the activity arms,

³⁸ Frederick Rand Rogers, *Educational Objectives of Physical Activity*, A. S. Barnes and Co., 1929, p. 103.

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especially the sciences and household arts, have very definite health aims. Like all objectives, these must be conscious in the mind of the leader but never so in the mind of the child. Health is a by-product of wholesome living. Health, like happiness, must be found by the wayside and the more you pursue it the more it flees from you. This viewpoint is sustained by Dr. Robert Hutchinson, British physician and author:³⁹

He declared himself as being in accord with G. K. Chesterton that "of all human things, the search for health is the most unhealthy."

"The reason for this, is most obvious; fussiness about health increases fears and impairs the serenity which is the basis both of health and of happiness. The old ignorance about the body and stolid resignation to its ills was probably a more healthy attitude and certainly a happier one, than the modern curiosity and over-anxiety."

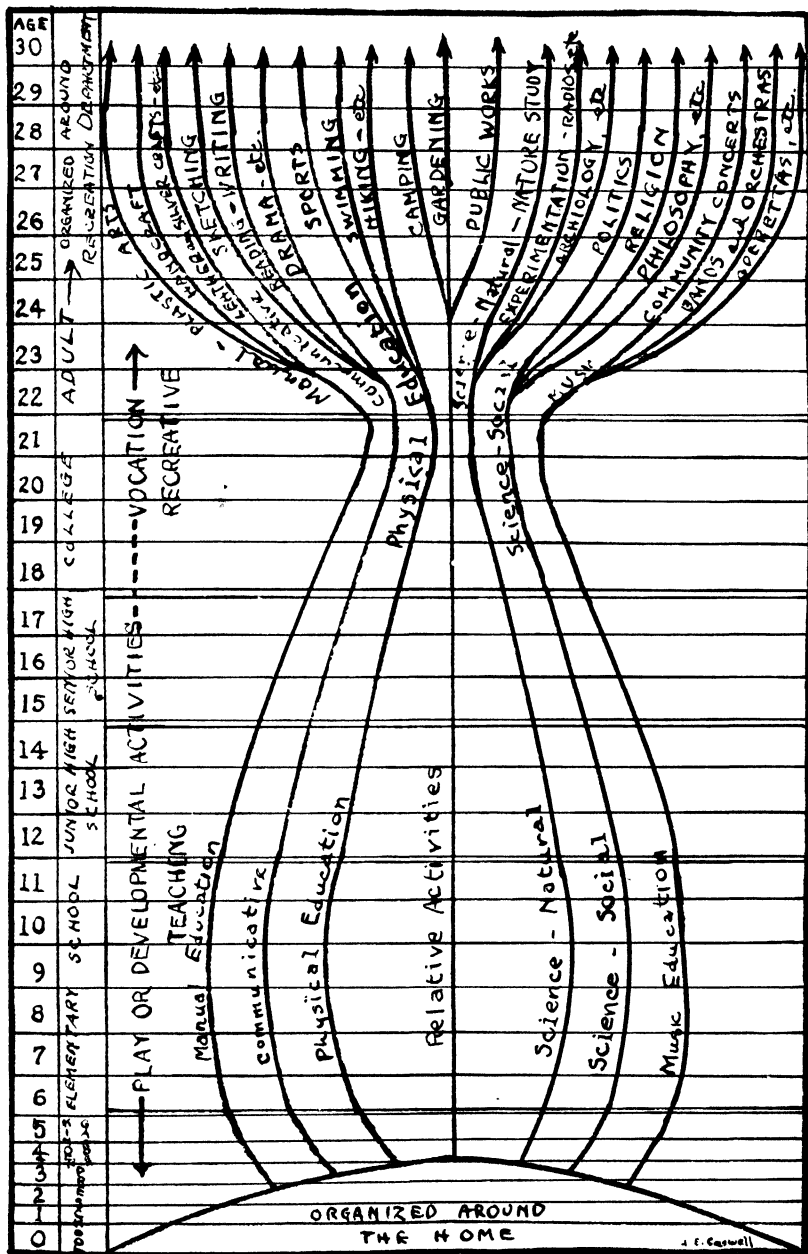
Another reason why health and physical education are not synonymous is because physical education has numerous objectives other than that of health (page 31).

It is not at all inconceivable that the reorganized school will entirely eliminate all departments as now thought of and organize everything around objectives. This has already been forecast by Goodwin Watson.⁴⁰ When this reorganization occurs all activities will be looked upon—as they should be now—as tools used under leadership for the purpose of affecting behavior. Certain activities of the curriculum will be selected for one person and certain for another in the light of the outcome which is desirable. These activities may be placed upon the survival basis or upon the developmental basis. The way in which these activities are carried out will place them high or low on the scale of standards. If they are high on the scale of standards we should indicate the results as an adjustment in accordance with standards. The figure on page 33, indicates the possibilities of the survival and developmental activities being administered in the light of an adjustment to standards.

Physical education, because its activities so closely parallel the total play activities of childhood, must take a prominent place in education. These activities are close to the *want* of the child and, hence, become the most powerful means of producing desirable behavior changes.

³⁹ *New York Times*, August 24, 1930, p. 4.

⁴⁰ *Ibid.*, March 9, 1930, p. 26.



Relationship of Physical Education to other Activities

PROBLEMS

1. You are a director of physical education and health in a city. The department which you head has been organized under the pressure of compulsory state law. The superintendent of schools and many of the teachers look with suspicion upon "physical" education. They are primarily interested in "discipline which comes from mental education." What steps would you take to interpret the objectives of a modern physical education program to the superintendent of schools and to the teachers?

2. You are the director of physical education in a high school. The principal is a strict disciplinarian who wants to see precision and exactness in all subjects. For a number of years, previous to your coming, all the children had a daily period of activities which were extremely formalized. Quietness prevailed at all times in the gymnasium and the dressing rooms. Since taking the position you have organized an informal program under squad leadership in the gymnasium, locker-room and yard. These squad leaders do not exercise the same type of discipline. Enthusiastic calls emerge from the gymnasium as the groups participate in the games. Activities are decentralized under squad leadership. The principal notices the increase of noise; the decentralization, which he terms hilarity, and the breakdown of discipline. How would you justify your procedure?

3. You are a grade teacher in a twenty-four room elementary school. It is a two-story building and has a five-acre playground. There has been some confusion in connection with the three ten-minute recesses which have been held at ten, eleven and two o'clock. The principal has proposed to the faculty that they abolish the recesses and install three two-minute relief drills to be given by the teachers in each room. The principal is urging this to eliminate the confusion of passing at recess periods and to make possible additional time allotment in drawing. Which way will you vote and why?

PRINCIPLES

1. Physical education is one of the administrative arms of education hence its objective should be in harmony with the objectives of general education.

2. All educational changes take place by means of activity. The very word *education* implies change of behavior. Physical education changes *behavior* by means of the big muscle or total body activities.

3. Because of the child's driving interest in physical education activities educational changes may be easily made through them.

4. Strictly speaking there is no such thing as a physical activity if compared with a mental activity. There are interpretive activities and large muscle activities. All activities must be rated on both scales as every act involves a duo-tissue; namely, muscle and nerve.

5. Joy is a sign that growth and development are proceeding harmoniously.

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CHAPTER III

DIFFICULTIES IN THE PATH OF UNIFIED ADMINISTRATION

Difficulties beset the project of unified administration. The triple relationship of city, school district, and state is one cause of these obstacles. The ideal form of administrative control is impossible at the present time. However, much can be done to clarify the situation. Only the word *confusion* can describe the conditions existing to-day in many municipalities in America concerning the administration of the laboratory side of education—the play and recreation activities outside of school hours.¹ A well-known authority has aptly summed up the situation:

Where there are many local authorities there is bound to be some unnecessary duplication of work, as well as neglect of some functions. Thus in one city there are two sets of playgrounds, one provided by the school board and another by the park board, yet there is no system of playgrounds because of failure of the two boards to work together. There is another case where there are two sets of municipal baths, with two separate supervising authorities, yet there is no system of public baths. Such overlappings frequently lead to bitter political controversies between the separate authorities, and frequently result in lawsuits between them, all in the name of the public and at the public expense. On the other hand, new functions sometimes fall between two stools, since no one of the existing authorities cares to spend money on it.²

The following figure indicates how both the city and school authorities are organizing play and recreational activities in many municipalities. Because of this situation there is a definite lack of coördination which leads to great confusion in the minds of the public in respect to administration and to initiation. Within each of the various subdivisions listed above a considerable amount of confusion could also be cited.

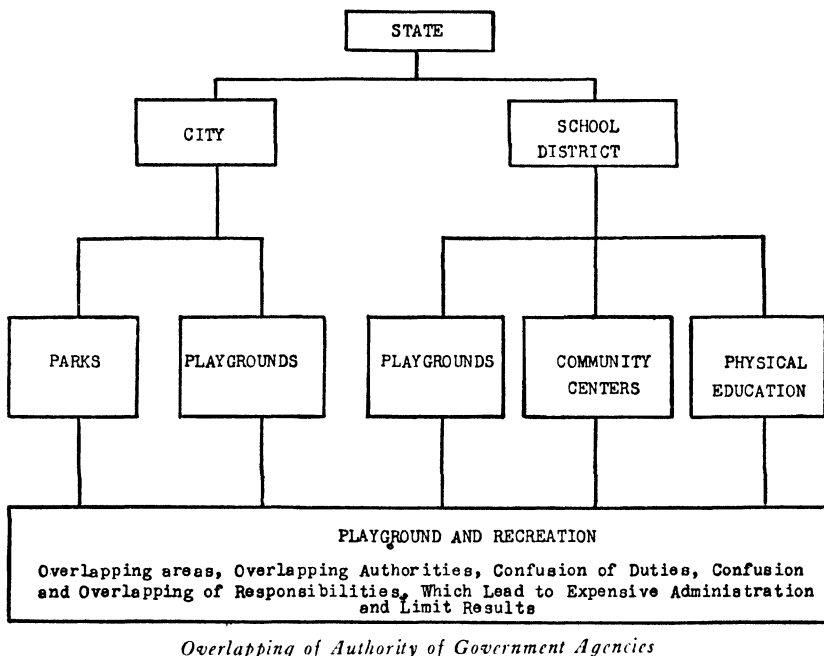
This confusion cannot be attributed to any one cause, unless it be lack of foresight. Governmental responsibilities have increased tremendously with the growth of cities. One responsi-

¹ Jay B. Nash, *The Organization and Administration of Playgrounds and Recreation*, A. S. Barnes and Co, New York, 1928, p. 86.

² William Anderson, *American City Government*, Henry Holt and Co., New York, 1925, pp. 82, 83.

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bility is that of providing parks and playgrounds and adequate education extension opportunities in the schools. Various special governmental agencies have arisen and extended their plan of activity so that to-day we have several attempting to function in connection with the same activities in the same areas (note organization figures of New York, Chicago, Salt Lake City, Detroit



and Cleveland, pp. 57 and 61). A glance at the growth of the governmental agencies referred to on page 39, and maps on pages 66 and 94, will indicate the cause of much of the present administrative confusion.

I. PUBLIC SCHOOL TRENDS

One of the most outstanding developments since 1850 has been the expansion of the public school. During this time we witnessed the battle for tax supported, non-sectarian, publicly controlled and directed schools. Following the conflict for free elementary schools came the battle to extend the educational system in all directions. The age range has been lowered to cover the kindergarten and pre-kindergarten ages, it has been raised to cover

the high school, junior college and even university ages, it has been widened to include an educational procedure throughout the entire year. We may say that the public school influence has become universal.

In 1870 three children in every ten from the ages of five to eighteen attended the public school—the length of time varying from a few months to a full school year. In 1927 seven out of every ten children between the ages of five and eighteen attended. In this latter instance the length of time averaged between eight and nine months.

It is difficult to realize the increasing importance of the public school in modern society. The National Education Association sums up this advance of the public schools: "At least one person in every five in the United States is at present attending a free public school."³

This growth in universality has particularly been noted in the secondary school which enrolled:

In 1890, 1 student per 178 of total population;
In 1900, 1 student per 110 of total population;
In 1910, 1 student per 82 of total population;
In 1920, 1 student per 50 of total population;
In 1926, 1 student per 35 of total population.

Thorndike estimates that one person in ten entering the teens was enrolled in high school in 1890, and that by 1918 the ratio had increased to one in three. Similar computations indicate that by 1924 approximately two out of five entering the teens were enrolled in some secondary school.⁴

In 1924 the cost of instruction in public schools amounted to \$1,231,554,330 as compared to \$120,504,724 in 1910. It will be noted that this expenditure has increased almost ten fold in the short period of fourteen years. School property has increased in valuation with great rapidity. The value of such property in 1926 is indicated in the following:⁵

Public elementary and high school	\$4,676,603,539
Private elementary and high school	911,544,000
Teacher training schools	202,630,512
Schools of higher education	2,334,307,421

³ "Advance of the American School System," *Research Bulletin* (National Education Association), Vol. V, No. 4, Washington, D. C., September, 1927, p. 199.

⁴ Fowler D. Brooks, *The Psychology of Adolescence*, Houghton Mifflin Co., New York, 1929, p. 8.

⁵ J. J. Tigert, *Education in the United States*, Pan-Pacific Conference on Education, Rehabilitation, Reclamation and Recreation, Honolulu, T. H., April 11 to 15, 1927, p. 2.

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The following table indicates some comparative costs:

TABLE III

COMPARISONS OF VALUES OF SCHOOL AND RECREATION PROPERTIES AND
PER CAPITA COST OF OPERATING THE SAME
(Cities over 30,000)

		Property		Expense	
		<i>Acres</i> ⁶	<i>Parks and Playgrounds</i>	<i>School</i>	<i>Per capita yearly cost</i> ⁸ <i>School</i> <i>Recreation</i>
New York	10,178	873,551,307	245,110,854	17.83	1.08
Chicago	4,487	56,870,641	120,457,272	13.52	1.97
Philadelphia	7,801	55,001,500	61,224,875	11.30	1.49
San Francisco	3,100	24,653,680	21,345,993	10.42	1.66
Buffalo	1,366	21,913,546	24,476,787	15.82	2.32
Los Angeles	949	23,763,121	69,074,291	....	....
Pittsburgh	1,483	19,803,000	39,913,736	16.10	1.00
Baltimore	2,500	.....	.....	9.14	1.27
Boston	4,000	73,798,600	38,801,165	17.67	3.14
St. Louis	2,918	58,163,949	27,519,423	10.56	1.56
Cleveland	2,220	35,917,954	42,984,578	15.59	1.59
Detroit	3,724	51,961,897	49,488,931	12.22	1.75
Total	44,726	1,335,525,195	764,106,905	15.26	1.47
United States	206,850	1,733,578,785	1,864,335,933	14.03	1.23

The public school system has under its control a large number of buildings and property units, the distribution of which will be noted in the following: ⁹

Total 263,280
 165,000 (one-room) 4,750,000 children
 15,000 (consolidated) 2,750,000 children
 30,000 (2-4 rooms) 1,500,000 children
 Village schools, 3,000,000 children
 City schools, 13,500,000 children

A. Physical Education Had No Place in Nineteenth Century Education. Although physical education is now one of the recognized arms of educational administration, it received little or no recognition during the rapid growth of schools and universities in the latter part of the nineteenth century. Physical education had no place in the development of the elementary schools because it

⁶ *Financial Statistics of Cities*, U. S. Bureau of Census, Washington, D. C., 1925, p. 398.

⁷ *Ibid.*, p. 326.

⁸ *Municipal Index*, American City Magazine, New York, 1927, p. 630.

⁹ *Annual Report*, Bureau of Education, Department of the Interior, U. S. Governmental Printing Office, Washington, D. C., 1928.

did not contribute directly to skills in the three "R's" and because the benefits of physical education activities were received as a natural by-product of life in the open. Likewise physical education had little or no place in the development of colleges and universities that prided themselves upon their interest in what they termed "cultural" subjects and "professional" training.

These two outstanding educational trends have been the cause of one of the great educational battles of history. This partly explains why many school men of to-day have little conception of the place of physical education in the program. On the one side of this field has been arrayed the old established educational force of autocracy—the university, on the other the young, constantly enlarging force of democracy—the public school. The past century has witnessed many clashes.

Denison¹⁰ claims that democracy must establish a new set of emotions as compared with those which are built up in an autocracy. In this challenging treatise Denison points out that autocracy is held together by means of molding certain sets of emotions in the lives of young children. Tribal groups found it necessary to build these emotions if they were to attain sufficient solidarity to live. These emotions were built around two attitudes toward the world about them—*mana* and *miasma*. The forces of life which gave strength and success which indicated contact with the gods were called *mana*; those which led to destruction, were *miasma*. It was by persuading the people of the tribe that the leader had propitious contact with the gods that he was able to retain his autocratic position. He also was able to enforce his mandates in his council by threatening the people with destruction. The forces of destruction—*miasma*—were taboo. The only way to avoid the consequences of contact with things which were taboo was by means of intervention upon the part of one who was in touch with *mana*. In this way solidarity could be attained, rules could be enforced and old customs could be saddled upon the young. Customs were followed with but little question.

As the tribe became larger, individual contact with the leader was impossible because of the wide geographic area in which subjects lived. Therefore the crown which became the symbol for authority was divided and power was placed in the hands of many subofficials. The police badge thus is assumed to have had its origin in this division of the crown.

¹⁰ J. H. Denison, *Emotion as the Basis of Civilization*, Charles Scribner's Sons, New York, 1928.

Democracy however cast aside these two ideas. No one in the group was thought to have the magic power of mana and the fear of miasma was largely removed. A new set of emotions had to be built if a democratic organization was to acquire solidarity. These attitudes were built around the "equality of man" rather than around the idea of the subservience of one individual to an hereditary leader. It is these emotions which may eventually be the determining forces in the preservation of the democratic form of government. They have to be built upon *wants* rather than upon *musts*. They must be built upon the fraternal rather than the paternal level. The public school maintained for every one must become the agent of democracy for the building of these emotions. Thus special interest is given to the forces which are attempting to build a democratic rather than an autocratic state of society.

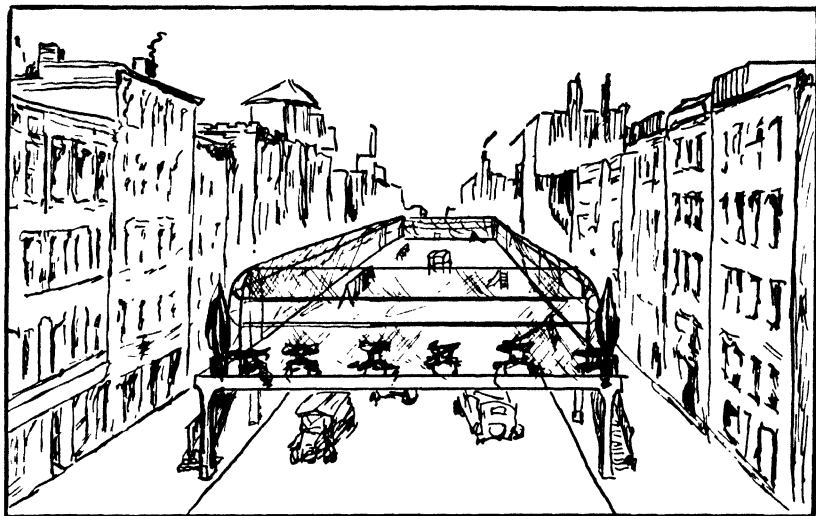
The autocratic forces have been firmly entrenched in many of our universities. These universities have been for the minority. Their object has been the training of leaders in various cultural and progressive phases of education. They have not only trained leaders in the professions of medicine, law, architecture, etc., but they have been to a large extent responsible for the training of teachers for the secondary schools. These teachers in the secondary schools, having been trained in the university, naturally carried the ideals from the latter to the secondary schools. In this way the subjects which were considered highly important by the university were put into the secondary schools in order to prepare for higher institutions. Secondary school teachers considered the subjects taught by the university of great importance. They had been trained in those subjects. It was quite natural, then, that great stress should be placed upon these subjects in the *preparatory* schools. Note that these were called *preparatory*—preparatory for university, not necessarily for life. Thus Latin, Greek, mathematics, etc., became entrenched in these secondary schools. Instruction was largely dominated by the universities, as the teachers in the secondary schools taught according to the methods they had learned in the university halls.

Whether as a matter of plan or as a matter of chance, the universities and the preparatory schools touched only a small per cent of the population. Probably their attitude was well reflected by a remark of Bismarck. He was once told that ninety-eight per

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cent of the students in the German universities were drinking themselves to death and he replied, "Let it be so, the other two per cent will rule Germany."

Arrayed against these powerful and well intrenched university forces is the army of democracy—the public school. The schools of a democracy are planned for every one and education is considered a preparation for life. Thus the first great battle was



Showing Possible Use of Elevated Street Playground

won—state supported elementary schools for every one. The conflict has continued. It has been a fight, since the first victory, for the extension of the system in many directions. The school system has extended its influences into the kindergarten and the pre-kindergarten periods and even to ways that involve the health of the new-born babe.

This system has extended upwards so that to-day democracy has won the battle for free public high schools. Democracy is now girding itself for the next great siege which is concerned with the junior college. Numerous states are making plans in the junior college system so that every child in the state will have opportunities, at public expense, for this type of schooling. In many instances the issue has been pushed to the point where it involves

free university education. The training of teachers is already considered a public function.

The present day sees the public school a very prominent factor in the lives of practically all the children from the age of five to seventeen. Since the World War physical education has gained recognition particularly as a part of the public schools. The public school age period is undoubtedly the one in a child's life in which the benefits of physical education activities are most marked. It is during this period with its peak probably at the age of twelve that the largest amount of activities is needed. During this time power in the organism is built. In later periods the aim of physical education can be little more than the maintenance of power.

B. Growth of Physical Education in the Twentieth Century. Physical education as a phase of education has had three periods of emphasis since 1850 and strangely enough or logically, these movements have followed wars. To a certain extent the impetus has been because of certain lacks or deficiencies discovered at the time of the war. Until the end of the World War the advocates of physical education arrayed themselves in rival systems. There was the German system, with its publication of "Mind and Body"; the Swedish system, with its publication "Posse Gymnasium Journal"; the Delsartean and Eclectic systems.

In a survey conducted in 1900 which included two hundred and seventy-three leading cities there were eighty-three that had special directors of physical education and only eleven reported gymnasiums.

The American Physical Education Association¹¹ was formed in 1885 and the Physical Education and School Health section of the National Education Association,¹² in 1895. There was a marked break from rigid systems in 1903 with the formation of the Public School Athletic League¹³ in New York City. By 1915 this had spread to one hundred and seventy-seven cities and a survey showed at that time a rather high percentage of new school buildings had gymnasiums and yard space for play.

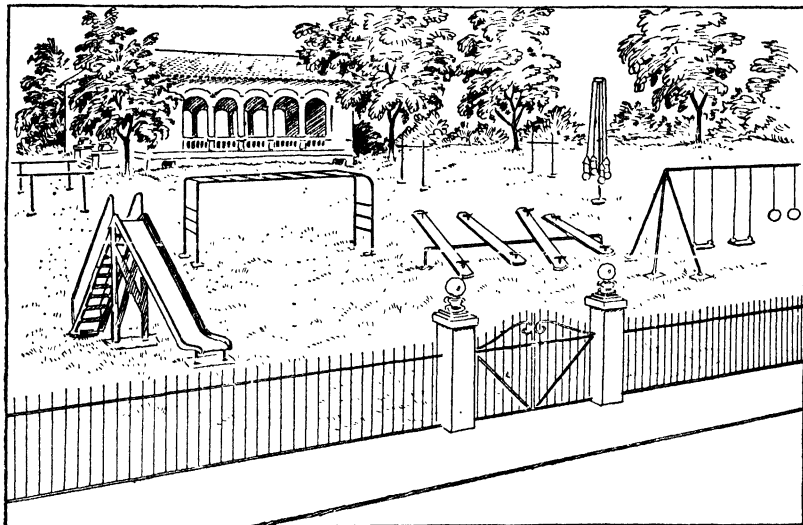
Since the World War progress in physical education has been very rapid. Most of the legislation relative to physical education

¹¹ *Proceedings of the American Association for the Advancement of Physical Education*, Third Annual Meeting, Brooklyn, New York, November 25, 1887, p. 3.

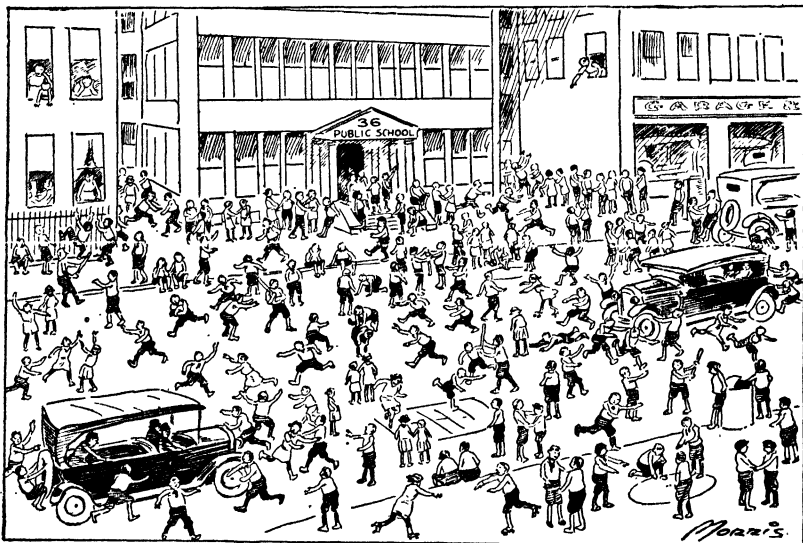
¹² Emmet A. Rice, *A Brief History of Physical Education*, A. S. Barnes and Co., New York, 1926, p. 233.

¹³ Henry S. Curtis, *Education Through Play*, The Macmillan Co., New York, 1915, p. 193.

PLAYGROUNDS WITHOUT CHILDREN—



AND CHILDREN WITHOUT PLAYGROUNDS



Drawn for THE AMERICAN CITY by Morris to illustrate the accompanying plea by W. S. Dessenbaugh for more effective coordination of municipal and public school recreation systems.

Showing Need of Placing Playgrounds Where Children Will Use Them

was enacted in this period. A number of states had physical education legislation previous to this—North Dakota in 1899, Ohio in 1904 and Idaho in 1913. However, two of these states never had a state director nor have they published manuals. Ohio made very little progress in physical education until an amendment was made to the law in 1923.

During this period of legislative advance the spread of physical education has been very rapid. The following figure will indicate the legal status to-day:

STATES

48 _____

45 _____

40 .

35 .

30 .

25 .

20 .

15 .

10 .

5 .

0 .



Courtesy of James E. Rogers.

Showing Number of States with (1) Physical Education Laws, (2) Manuals, (3) State Directors

This expansion of physical education can well be illustrated by the following elements in the teaching situation:

1. *Physical Education Expansions in Time Allotments.* A survey of the status of physical education in 1900 indicated practically no recognition of the subject from the standpoint of giving it time allotment in the program. To-day as is indicated on pages 39 and 49, there is practically universal recognition of the subject.

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The predominance of five periods per week in the elementary schools indicates that the trend is to emphasize physical education during the elementary school age. In many schools especially where the platoon system is represented physical education and playground activities have a ten-period per week allotment.

2. *Physical Education Expansion in Terms of Space.* The physical education plant, because of the height of the ceiling of the gymnasium and the auxiliary space necessary for lockers and showers, occupies from eleven to thirty per cent of the entire floor space of the building. The cost of the physical education plant, as compared to the total education plant, estimated on a cubic foot basis, is indicated on page 221.

3. *Expansion Indicated by Part and Full Time Workers.* A survey conducted in 1900 by the Bureau of Education which included two hundred and seventy-two of the leading cities of the country indicated that but eighty-three of these cities had special directors of physical education. To-day it is estimated that there are twenty-five thousand full time directors of physical education in addition to many part time directors and elementary teachers who conduct activities twenty minutes or more per day. For estimate of cost refer to page 49. The increase in full and part time physical education teachers is indicated on page 327.

4. *Growth of Physical Education in Selected States.* Figure on page 47 indicates that well over ninety per cent of the children of the country are living in the states that have compulsory physical education laws. These laws as a rule prescribe instructional periods. The number of periods per week are indicated in figure on page 274.

The state of Maryland during the past ten years shows a record of a great increase in the numbers of children participating in playground activities in the regular school program. In some instances this percentage has been pushed to the ninety per cent mark and the state as a whole has reached well beyond the fifty per cent mark. This growth is indicated by the results of the badge test which is given on page 302; as well as by the percentage of soccer players in the high schools.

Many cities have been able through the organization of school athletics in the junior and senior high schools and through the organization of playground activities in elementary grades to uni-

versalize after-school, laboratory physical education activities. In some instances the administration of these activities is connected with the playground or recreation department of the city by a joint official. Examples of this will be found on pages 174 and 176.

TABLE IV

ESTIMATED COST OF LAND, EQUIPMENT, EXPENSE AND OUTLAY FOR PHYSICAL EDUCATION AND RECREATION—INCLUDING PARK AND PLAY-
GROUNDS FOR UNITED STATES

	<i>Value of Buildings and grounds</i>	<i>Yearly salary</i>	<i>Outlay</i>	<i>Yearly Supplies</i>	<i>Yearly Per capita ⁶</i>
Physical Education	93,532,070 ¹	82,103,622 ³ 41,143,172 ⁴	2,069,088 ^{7a}	Included under salary ⁵	School children 4.93 ²
Recreation ⁹	1,833,971,843 ⁷	57,962,729 ^{7, 8}	54,416,852 ⁷	Included under salary	1.41 ¹¹
Charity		12,600,000 ¹²		Included under salary	
Total	1,927,503,913 ¹⁰	193,809,523	56,585,940		

¹ Estimated on basis of 20% of 4,676,603,539 ²—total value of school property.

² Report of Bureau of Education, U. S. Department of Interior, January, 21, 1929.

³ Based on elementary teachers devoting 20 minutes, $\frac{1}{15}$ of school day to physical education.

⁴ Based on 7% of high school teachers devoting full time to physical education.

⁵ Based on 9% of supplies being devoted to physical education. It is 10.9% in Los Angeles City schools.

⁶ The total yearly cost of education per child is \$102.05—per capita for entire population is \$17.50. Report of Commission of Education, U. S. Department of Interior, year ending June 30, 1928.

⁷ Based on amount reported in Financial Statistics of Cities, 1925, plus estimating for people living outside cities below 30,000.

^{7a} Based on 10% of Estimates for Cities over 30,000, U. S. Census, 1925.

⁸ Including salaries and supplies.

⁹ \$19,202,123.25 for playground purposes. National Recreation Association Yearbook, 1927, p. 10.

¹⁰ Does not include Federal, State or County Parks.

¹¹ Cities in Group 1 per capita is \$1.47 for total population; cities in Group 11 per capita is \$1.47 for total population. The following city rates total population are: New York City, \$1.08; Chicago, \$1.97; Philadelphia, \$1.49; Detroit, \$1.57; Washington, \$2.22. Financial Statistics of Cities, 1925, U. S. Census Reports, p. 326. For cities in California the per capita rate is \$1.85.

¹² Based on estimate of \$70,000,000 raised by Community Chests, Association of Community Chests and Councils, Graybar Building, New York City. (Does not include New York City and other cities with no Community Chest.)

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The possibilities of wide participation are noted in Gary, Indiana; Oakland, San Diego and Long Beach, California; Battle Creek, Michigan; Niagara Falls, Albany, Buffalo and Bronxville, New York; Wichita, Kansas; Oklahoma City, Oklahoma; and Columbus, Ohio. In some of these cities participation has gone as high as ninety-seven per cent.

This increase in after-school participation in playground activities and particularly in athletics has been paralleled by a sharp decline in military drill as is indicated in the following table:¹⁴

TABLE V
ENROLLMENT IN MILITARY-DRILL CLASSES IN PUBLIC HIGH SCHOOLS

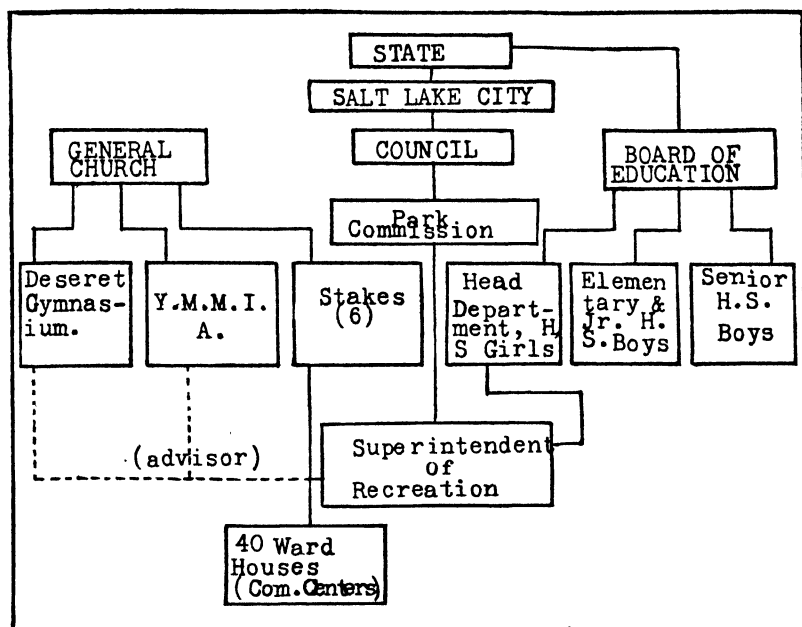
<i>Year</i>	<i>Schools Reporting</i>	<i>Schools Offering Military Drill</i>	<i>Percentage of Schools Offering Military Drill</i>	<i>Boys Enrolled</i>	<i>Boys Enrolled in Military Drill</i>	<i>Percentage of Boys Enrolled in Military Drill</i>
1900.....	6,005	15	15	216,207	10,455	4.8
1914.....	11,515	82	0.7	541,486	9,532	1.8
1918.....	13,951	1,276	9.1	704,856	112,683	16.0
1920.....	14,326	688	4.8	822,967	98,831	12.0
1924.....	14,827	300	2.0	1,183,067	55,964	4.7
1926.....	17,710	314	1.8	1,445,886	51,318	3.5

5. *Wider Use of School Playgrounds.*¹⁶ It is indeed difficult to determine the administration of school playgrounds by means of questionnaires. The extent of variation is noted in the replies which have been received by three organizations, the National Recreation Association, The American City and the Division of Physical Education and School Health of the Federal Office of Education. The discrepancy in these reports is noted in the following figure:

¹⁴ William S. Carr, *Education for World Citizenship*, Stanford University Press, California, 1928, p. 117.

¹⁵ No data.

¹⁶ Marie M. Ready, *School Playgrounds*, Department of the Interior, U. S. Government Printing Office, Washington, D. C., June, 1930.



Courtesy Charlotte Stewart.

Showing Inter-relationship of Departments in Salt Lake City

A survey of the control of school playgrounds brought forth the following replies from superintendents:¹⁷

TABLE VI

CONTROL OF SCHOOL PLAYGROUNDS

School playgrounds under school control	66%
School playgrounds under municipal control	25%
School playgrounds under joint control	6%
Not answered	2%

Fifty-five of the replies indicate that the school authorities are dissatisfied with having the control of school playgrounds in the hands of an outside group as the park or playground commission. Only two express satisfaction.

Another summary of answers is noted:¹⁸

¹⁷ J. F. Rogers, *Municipal and School Playgrounds and Their Management*, Chief of Division of Physical Education and School Hygiene, Bureau of Education, Washington, D. C., January, 1924, p. 7.

¹⁸ *Ibid.*, p. 9.

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TABLE VII

DESIRED CONTROL OF SCHOOL PLAYGROUNDS

Number who think all school playgrounds should be under school management	90
Number who think they should not be wholly under school management	33
Note: In the latter it is interesting to note that of the 33 replying that school playgrounds should not be wholly under school management, 25 are providing playgrounds for all the new schools.	

A number of cities that are operating playgrounds exclusively by the board of education are indicated in the following table:

TABLE VIII

NUMBER OF CITIES OPERATING PLAYGROUNDS EXCLUSIVELY BY BOARD OF EDUCATION

Year ¹⁹	1909	1910	1911	1912	1913	1915	1916	1917	1918	1923 ²⁰	1924	1925	1926	1927
Number	69	—	39	35	36	71	70	108	85	127	122	113	124	134
Total Rept.	150	184	257	285	342	432	471	481	403	680	711	748	790	815

As an indication of the extent to which the board of education through the physical education department can meet the year-round playground problem it is interesting to note the school playground attendance in the city of Los Angeles:

The growth of the number of playgrounds operated by the board of education on the school grounds is well illustrated in Oakland, California (figure, page 192); and in Philadelphia, Pennsylvania (figure, page 190).

The movement for a joint control of playgrounds for the purpose of centralizing administrative authority is noted in the following table:

TABLE IX

NUMBER OF CITIES OPERATING PLAYGROUNDS WITH TWO OR MORE GOVERNMENTAL OR PRIVATE AGENCIES COOPERATING ²¹

Year ²²	1909	1910	1911	1912	1913	1915	1916	1917	1918 ²³	1923	1924	1925	1926	1927
Number	No Report			27	32	55	49	115	118	197	250	272	313	338
Total Rept.	150	184	257	285	342	432	371	481	403	688	711	748	790	815

¹⁹ Taken from Yearbooks of National Recreation Association, 315 Fourth Avenue, New York City.

²⁰ No reports.

²¹ While the figures in this table are approximately correct, it was almost impossible to determine the amount of coöperation which has and is taking place.

²² Taken from the Yearbooks of the National Recreation Association, 315 Fourth Avenue, New York City.

²³ No reports for the years 1919 through 1922.

In order to ascertain the viewpoint of superintendents a special questionnaire was sent out to fifty large cities. These superintendents were asked, "Would you approve the policy of schools organizing the late afternoon, Saturday and vacation time of school children?" The questionnaire assumed the activities would be organized on the school grounds. The following table indicates the replies:

TABLE X

OPINION OF CITY SUPERINTENDENTS OF SCHOOLS ON CONTROL OF
SCHOOL PLAYGROUNDS

Number of letters sent	50
Number of replies	35
Number favoring school control of all year-round school playgrounds	34
Number not favoring	1

Extracts from the thirty-five replies are indicated in the following samples:

—Oakland, California; Willard E. Givens, Superintendent of Public Schools:

"We believe that the school control of school playgrounds gives the city at large the expert guidance of the wise use of their leisure time. We also feel that it lessens the possibility of choosing playground leaders for political patronage or favor by keeping the standards on a high professional plane."

—Santa Monica, California; Frederick F. Martin, Superintendent.

"We believe that the logical place for a large part of the public recreation program, particularly as regards children's playgrounds, shop work, handicraft work, occupational therapy, evening center work, civic center organizations, etc. is under the direction of the school department. This is based upon several reasons:

(1) The elimination so far as possible of undesirable political elements.

(2) The requirements in all school work of proper training, experience, etc. as demanded by certification.

(3) The schools are compelled to maintain and equip buildings and playgrounds for use during school hours.

(4) The elimination of much duplication not only in buildings, grounds, and equipment, but in administration,—and so we could go on with many reasons that you, of course, are familiar with."

—Binghamton, New York, D. J. Kelly, Superintendent of Schools:

"Furthermore, we have millions invested in this property which during that time is bringing us no returns. Every school plant should

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be open throughout the year. When the regular work is not in session, special recreational and occupational programs should be provided for those who desire them."

TABLE XI
COMPARISON OF USE OF SCHOOL AND MUNICIPAL PLAYGROUNDS

	Elementary		Junior High	
	Boys	Girls	Boys	Girls
Class or home room enrollment	38433	37351	13733	12545
Number using after school playgrounds daily	7786	4167	7799	201
Number using after school playgrounds at least 3 days per week	7179	7000	2381	191
Number not using after school playgrounds..	8222	11216	5008	5834
Reason for not using school playgrounds:				
Working after school	3106	2347	2288	628
Parental objection	3134	5512	657	1679
Other activities, i.e. music or dancing lessons, etc.	3182	3503	1493	2204
Number using Municipal Playgrounds daily	1779	1004	728	312
Number using Municipal Playgrounds at least 3 days per week	1371	590	701	198
Number using Municipal Playgrounds less than 3 days per week	4171	3092	2708	1453
Number not using Municipal Playgrounds, tennis courts, pools	12272	16678	5395	4824
Reason for not using Municipal Playgrounds:				
Distance too great from home.....	6910	8175	3800	2631
Prefer playing at school	5989	6273	2561	871
How many would use school playground if open during vacation	15294	15562	5450	2295
Is the school playground closer to home than other playgrounds?				
Yes	14162	18035	5063	4058
No	3639	3153	4566	4042
How many prefer school playgrounds to other places to play	18441	22991	4728	2816

—Clearwater, Florida; George M. Lynch, Superintendent of Public Instruction, Pinellas County:

"Permit me to say that I approve most heartily the policy of schools organizing the late afternoon and vacation time of the school children."

—New Orleans, Louisiana; Nicholas Bauer, Superintendent, Orleans Parish School Board:

"I am heartily in favor of using the school yards during the afternoon periods, Saturdays and vacation time as recreation centers."

—Atlanta, Georgia; Willis A. Suttin, Superintendent of Schools:

"I believe that the lands which we are buying for playgrounds for our children should be utilized a maximum number of hours. Quite

contrary to the general idea expressed by some, as stated in your letter, children do like to play on the playgrounds after school and on Saturdays."

—Berkeley, California; L. W. Smith, Superintendent of Schools:

"We give our emphatic approval to this extension of school influence. The enterprise has gone beyond the experimental stage. The whole community depends upon it as a settled and permanent community policy."

—Boise, Idaho; Charles F. Dienst, Superintendent of City Schools:

"We have found that the best administrative plan for directing these activities is under the direct supervision of the instructor in physical education of the school faculty."

The progress which the schools have made in the conduct of after-school playgrounds and particularly in the conduct of playgrounds on non-school days is indeed remarkable. It is remarkable because of the fact that in many states the laws are not clear in delegating the authority for the school to spend money on the days it is not in session. As a matter of fact the law is clear-cut in allowing schools to spend money on non-school days in less than ten states. It is quite apparent that when schools are given legal authority in no uncertain term, that the movement for the extended use of the school plant will be greatly augmented (suggested laws, pages 87-99).

6. *Growth in Number and Per Cent of Individuals Reached.* The program of physical education where stressed has included practically every child in the public school system. Not only do the children come under the influence of physical education during the instructional period but also during the after school laboratory or carry-over period (pages 171-182).

C. *Growth of Community Center Movement.* This public school trend which is closely related to the physical education movement is connected with the wider use of the school plant. It is often controlled by the extension department or division of the school (organization of Milwaukee, Wisconsin, page 95; and New York City, New York, page 61).

The table on page 58 indicates the type of activities in one thousand five hundred and sixty-nine school centers surveyed in 1923-1924.

"Activities with a recreational content form the bulk of those in the community center movement. Many of the club activities are of the physical education type although they are listed under the headings of civic or social occasions.

TABLE XII
FREQUENT ACTIVITIES IN SCHOOL EXTENSION PROGRAM

<i>Type of Activity</i>	<i>Number of centers</i>	<i>Per cent</i>
Athletics	1,107	70
Clubs and groups	795	50
Entertainments	706	45
Society meetings	704	44
Lectures	438	27
Social occasions	436	27
Civic occasions	367	23
Dancing	338	21
Night schools	285	18
Coöperative activities	214	13
Rooms open for quiet games and study	202	12
Public library branches	168	10
Total	1,569	100

"The school building is increasingly being used as the meeting place of numerous local associations. The actual volume of use cannot be stated because the necessary data is not available. We can however offer a rough classification which, despite its overlapping, may give some idea of the content and range of group activity in the school center":²⁴

CLASSES OF GROUPS MEETING IN SCHOOL CENTERS

Local groups organized about special interests as music, drama, literature and civic improvement.

School clubs, athletic associations and student-government associations.

Organizations closely related to the schools as parent-teacher and school-improvement associations.

Boys' and girls' clubs which are stimulated by national organizations such as Boy Scouts, Girl Scouts, Camp Fire Girls and the National Committee on Boys' and Girls' Club Work.

Philanthropic and social-service organizations as Community Service (Inc.) and welfare federations.

Organizations, both National and State, which are particularly concerned with the improvement of rural life as farm bureaus and granges.

Religious organizations as churches and Sunday schools.

Organizations which render service to school centers as State university extension departments, lyceums and Chautauquas.

Industrial groups connected with factories and trades.

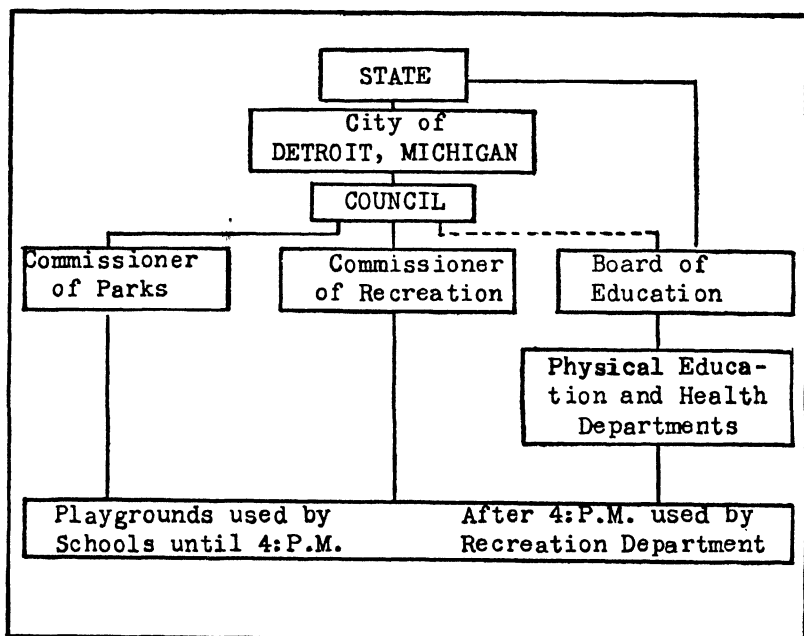
²⁴ Eleanor T. Glueck, *Extended Use of School Buildings*, Bulletin No. 5, The Department of the Interior, Washington, D. C., 1927, pp. 8-9.

Patriotic organizations like the American Legion.

Fraternal Organizations such as the Knights of Columbus and the Odd Fellows.

Municipal bodies such as the city council.

The local group most responsive to school-center hospitality is the Parent-Teacher Association, having been reported in two hun-



Showing Inter-relationship of Departments in Detroit

dred and forty-three instances or in more than fifteen per cent of the centers, as carrying on society meetings. It, more than any other group, shares in the management of these centers.²⁵

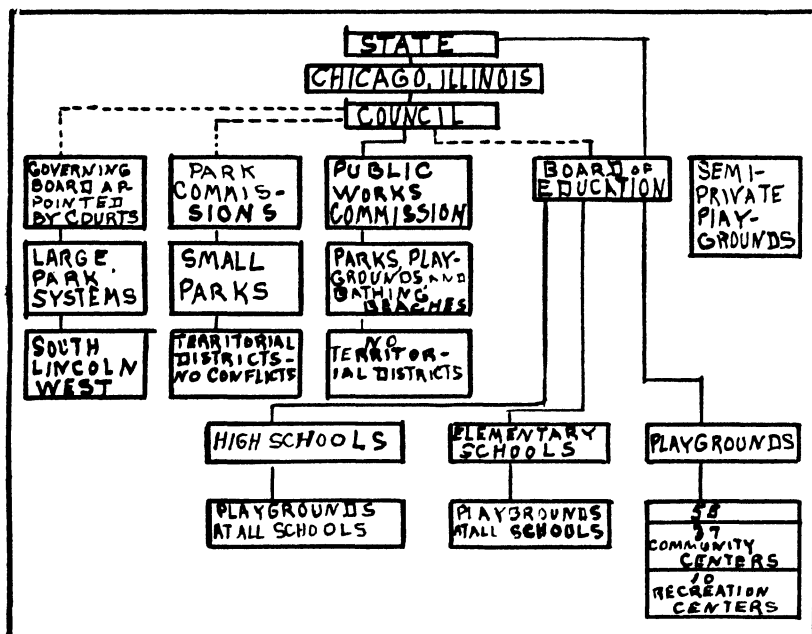
In relation to this study, it is interesting to note that athletics are conducted in seventy per cent of the institutions, totaling one thousand one hundred and seven centers, and appear almost twice as many times as any other activity.

The other significant situation in the study is that at the present time the laws are very vague and the provisions for sustaining the centers, very inadequate. Three periods of development may be noted:

²⁵ *Ibid.*, p. 10.

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1. *Permissive Legislation.* The old community center laws were largely of this type. They empowered the local board of education to permit organizations to use school buildings. This permission was given very grudgingly and many provisions were included relative to bonds to cover damages. A fee was usually required for light, heat, and janitorial services.



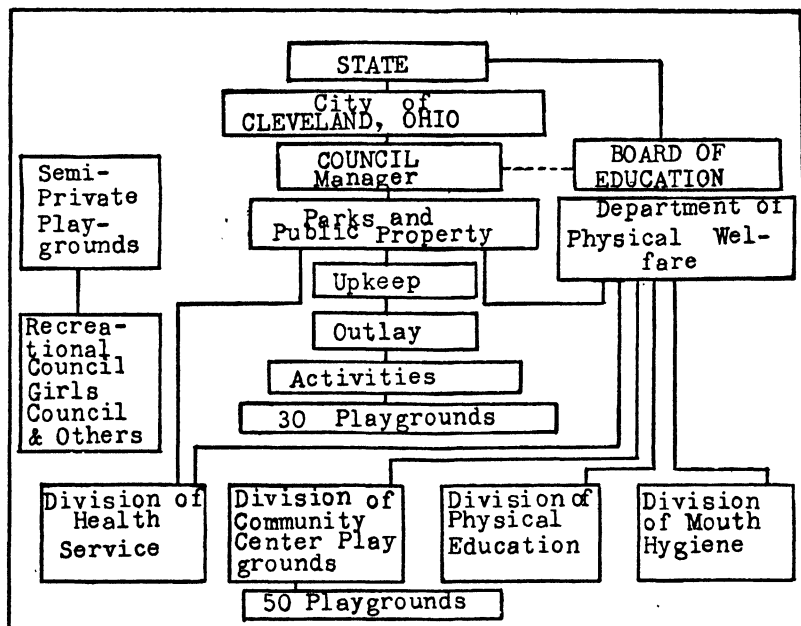
Showing Inter-relationship of Departments in Chicago

2. *Liberalized Permission.* Boards of education were allowed to spend school money for the conducting of evening schools to which were attached a number of recreational activities. Many of these were in guise of Americanization classes, and the excuse for the using of tax money was largely the alleged nature of the classes. Under certain circumstances groups were allowed to charge admission. This conflicted with the law which provided for free education. Undoubtedly the movement for the community use of centers has been greatly handicapped by this provision.

3. *Promotion of Activities.* The boards of education were granted power to organize and supervise activities. Provision

was made whereby self-organized groups using the facilities might help to sustain the activity.

With the coming of this more liberal type of legislation (pages 87-99), and with the increasing demand upon the part of the community, the school properties will be more extensively used. We may expect a tremendous increase in the use of school property,



Showing Inter-relationship of Departments in Cleveland

not only for physical education but for all other activities in the school program.

II. PARK TRENDS

In discussing the growth of park areas the word *park* will be used in its largest sense. The definition given by Eliot may well be used,²⁶ "lands extended and appropriated for the recreation of the people by means of their rural, sylvan, and natural scenery and character." This broad definition is used because it is very difficult to define the nature and function of various types of proper-

²⁶ Parks, Vol. I, *A Manual of Municipal and County Parks*, edited by L. H. Weir, A. S. Barnes and Co., New York, 1928, p. xix.

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ties which now are called parks. Rather than have the word become standardized there seems to be a tendency to broaden its meaning to include all types of public property even boulevards and monument sites.

A. The Expansion of the Park Movement. Since 1850, prior to which there were in reality no public parks in America, the movement has rapidly expanded. This expansion has included national, state, county and city parks. These areas are related to the administration of physical education because most of them become the laboratory in which schools may conduct activities. The national parks and the national forests, as well as the various state and inter-state parks offer opportunities for camping which is becoming a recognized phase of public education. Examples of such use of national facilities are Oakland and Berkeley, California; Chicago, Illinois; Detroit and Highland Park, Michigan.

In some instances state parks are sufficiently close to large cities to serve the needs of the community. The county and city parks serve as a great laboratory for the conduct of physical education activities. While only thirty-eight counties in the country, out of a total of three thousand, have established park departments, the movement is growing. The excellent service which these parks are rendering is noted in Essex, Hudson and Union Counties, New Jersey; Westchester County, New York; and Cook County, Illinois. Note on page 168, that the county park system largely supplies the City of Newark, New Jersey, with open areas.

In many cities the playground activities under municipal control are conducted by the park department. The following chart indicates the relationship of the park department to the total number of cities of the country operating playgrounds:

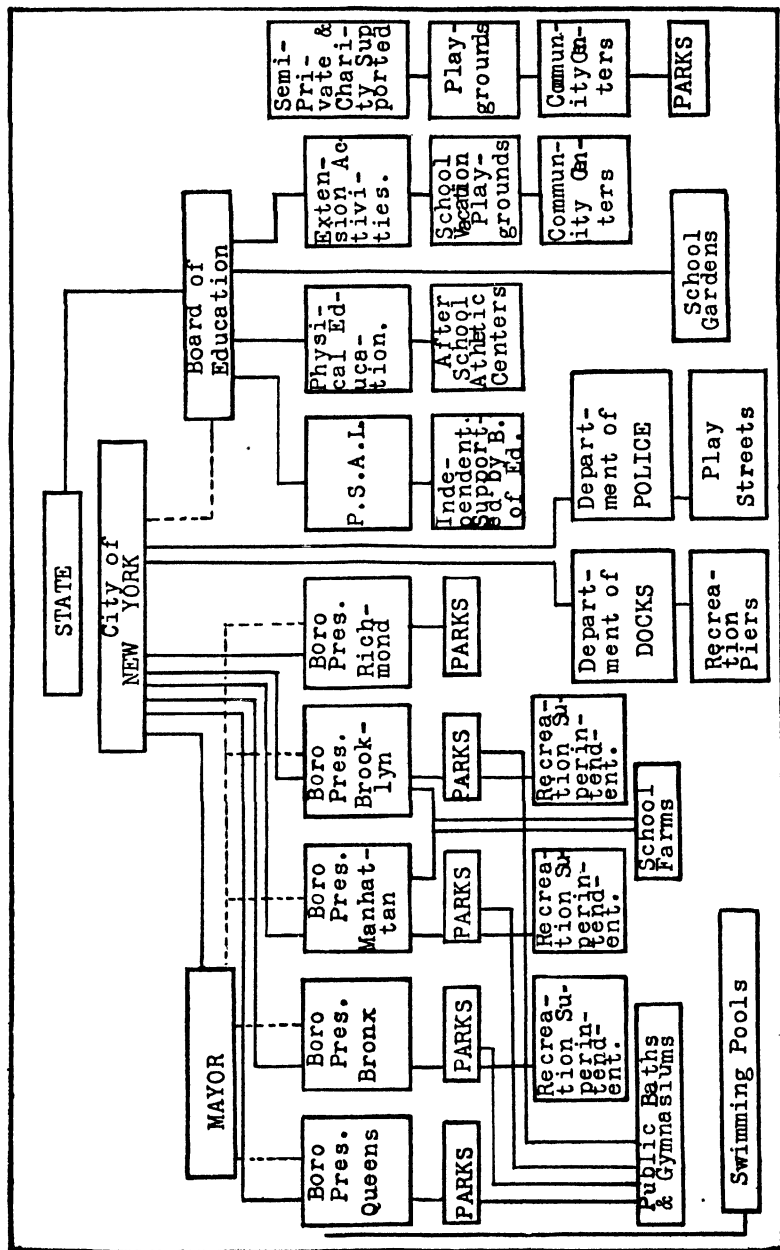
TABLE XIII
NUMBER OF CITIES OPERATING PLAYGROUNDS AS A BRANCH
OF PARK DEPARTMENT

Year ²⁷	1909	1910	1911	1912	1913	1915	1916	1917	1918 ²⁸	1923	1924	1925	1926	1927
Number	50	—	55	33	111	31	31	59	41	85	93	111	127	140
Total Rept.	150	184	257	285	342	432	471	481	403	680	711	748	790	815

Cities that have definitely planned a department have very excellently met the needs of the entire community. Such service is noted in the City of Minneapolis, Minnesota. A map of this city is on page 78. Also note the relationship of the department of

²⁷ Taken from Yearbooks of the National Recreation Association, 315 Fourth Avenue, New York City.

²⁸ No report.



Showing Inter-relationship of Departments in New York City

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physical education to the municipal park department in the cities of Berkeley, California, on page 161; Dallas, Texas, on page 83; Long Beach, California, on page 176; and Montclair, New Jersey, on page 171.

The very location of the parks in practically all of the cities of the country makes it impossible for them to serve adequately the needs of the school age child. It has been repeatedly shown that ninety per cent of the children coming to play areas travel less than one-quarter of a mile. Parks are not located with this in mind.

Schools are located within easy walking distance of all the children. The distance for junior and senior high school children is slightly greater but they are older and more capable of traveling (pages 41-42). These areas as set forth by Weir²⁹ are the logical play areas for the child.

III. MUNICIPAL PLAYGROUND MOVEMENT HAS EXPANDED

The growth of the municipal playground movement has been set forth in a very elaborate manner in a former publication.³⁰ This movement has a very close relationship to the whole program of physical education. A large proportion of the playground activities in youth should consist of big muscle activity. The reason for this is given on page 105. This close relationship is well indicated by the number of cities in which some type of coöperation has been worked out between the municipality and district school (page 75).

There has been a decided drop in the number of cities that conduct playground activities upon a charity basis as is noted in the following table:

TABLE XIV
NUMBER OF CITIES OPERATING PLAYGROUNDS BY MEANS OF CHARITY—
NO MUNICIPAL SUPPORT

Year ³¹	1909	1910	1911	1912	1913	1915	1916	1917	1918 ³²	1923	1924	1925	1926	1927
Number	136	—	132	157	127	220	165	131	115	118	111	178	129	97
Total Rept.	150	184	257	285	342	432	371	481	403	480	711	748	790	815

²⁹ Parks, Vol. I, *op. cit.*

³⁰ Jay B. Nash, *op. cit.*

³¹ Taken from the Yearbooks of the National Recreation Association, 315 Fourth Avenue, New York City.

³² No report.

Beginning in 1904 we have witnessed a decided movement in this country for the control of playgrounds by special commissions. This growth has to some extent paralleled that of the commission form of government. A growth of this type of government control is noted:

TABLE XV

GROWTH OF PLAYGROUNDS UNDER SPECIAL COMMISSIONS

Year ³³	1909	1910	1911	1912	1913	1915	1916	1917	1918	1923 ³⁵	1924	1925	1926	1927
Number ³⁴	15	17	31	33	31	65	56	68	44	93	135	174	197	206
Total Rept.	150	184	257	285	342	432	371	481	403	680	711	748	790	815

The expansion of the municipal playground movement brings it into definite conflict with both the municipal park department and the school district, as is shown in the figure on page 38. Although the municipal playground movement has had tremendous influence in liberalizing educational procedure it apparently has not been able to extend its service to a large per cent of the children in even the best organized cities. The movement has remained too largely a summer one only. A relatively small number of municipal playground departments conduct year-round activities.

The municipal playground movement has been hampered by having to employ untrained workers, in many instances selected under political influence. Only a small proportion of the departments are under Civil Service and even in many of these, Civil Service functions very ineffectively. The number of recreation departments under Civil Service is noted in the following:

TABLE XVI

NUMBER OF MUNICIPAL PLAYGROUND DEPARTMENTS UNDER CIVIL SERVICE

	<i>Number of cities reporting</i>	<i>Cities under Civil Service</i>	<i>Per cent under Civil Service</i>
1924 ³⁶	606	51	8.4
1926 ³⁷	748	65	8.7

The following indicates the approximate per cent of children of school age reached by municipal playground systems. Because

³³ Taken from the Yearbooks of the National Recreation Association, 315 Fourth Avenue, New York City.

³⁴ Many of these are semi-official commissions and not authorized by charter under commission form of government.

³⁵ No report.

³⁶ Taken from the 1925 Yearbook of the National Recreation Association, 315 Fourth Avenue, New York City.

³⁷ *Ibid.*, 1927 Yearbook.

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of the absence of accurate figures these statistics can be nothing more than approximations. In general the plan of comparing the daily attendance on playgrounds with the number of school age children in the city has been followed. In one or two instances the comparison has been between the daily attendance on the playground and the number of children of school age living within a radius of a quarter of a mile.

A survey of cities reporting playground attendance in the 1928 Year Book of the National Recreation Association for cities over thirty thousand indicates that the average daily attendance of the children on the playground is six and one-tenth per cent of the children of school age.³⁸

The total attendance on municipal playgrounds in seven large cities with well organized playground departments shows that the percentage of children reached daily was four and two-tenths per cent of the school population.³⁹

By actual count on three New York City playgrounds it was found that the attendance at the busiest hour was two and three-tenths per cent of the school children living within a radius of one quarter mile.⁴⁰

In another count in New York City, it was found that the attendance at certain municipal playgrounds was eight-tenths per cent of the school children living within a quarter mile radius.⁴¹

By exact count it was found that the daily average attendance of three large playgrounds in a congested area was seven per cent of the school children living within a quarter mile radius.⁴²

It is safe to say that the municipal playground movement even in vacation periods is not reaching more than five per cent of the children of school age daily. This checks with a survey made of the number of children that could be accommodated on the actual municipal playground areas in a number of cities, assuming the areas are used to their capacity. This survey indicated that not more than five and five-tenths per cent of the children could be ac-

³⁸ This figure was obtained by a comparison of the daily average attendance reported by the municipal departments and compared with the number of school age children within the cities as reported by the United States Commissioner of Education.

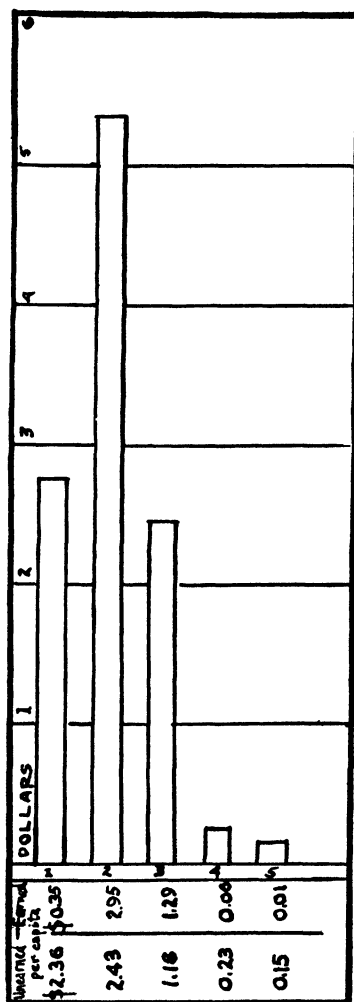
³⁹ This figure was obtained by a special canvas made by the author with the help of the playground superintendents of several selected cities of the country.

⁴⁰ This figure was taken from a study conducted by Charles Storey of the Russell Sage Foundation.

⁴¹ This figure was taken from a report by James E. Griffity, New York University, who made actual counts on the number of days, and compared them with the number of children living within a quarter of a mile radius.

⁴² This figure was arrived at by the author in connection with an actual count of the number of children attending playgrounds over a month period, as compared with the number of children living within a quarter mile radius.

commodated on the various grounds. Two checks were made in other cities—one included one hundred and fifty-four cities and it



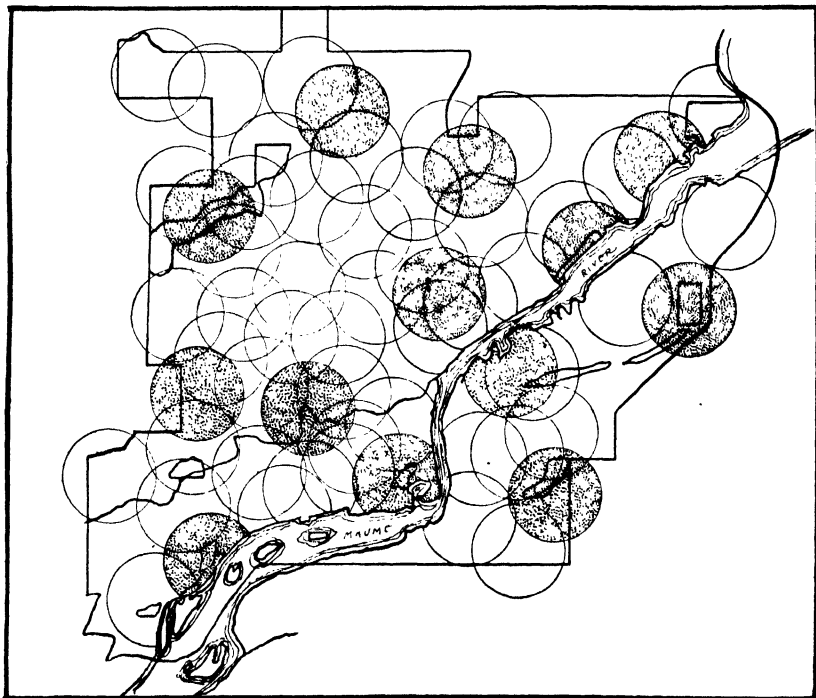
Allocation of Money Raised for the Community Chest in Nineteen Cities; (1) Dependencies, (2) Health, (3) Character Building, (4) Care of Delinquents, (5) Coordination

was found that the average daily attendance was two and one-tenth per cent of the children of school age. In another of five hundred and thirty-five cities it was estimated that the average daily attend-

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ance was one and nine-tenths per cent of the children of school age.

These reports tally very well with the conclusions of the Cleveland Survey⁴³ which estimated that municipal agencies were reaching approximately four per cent of the children of school age. An estimate of the number of children reached, based on the Toledo Survey⁴⁴ indicates approximately six per cent (including men,



Showing the Distribution of Municipal—Shaded—and School—Unshaded—Playgrounds in Toledo, Ohio

women and children) of the school population of the city. A survey of conditions in Hoboken, New Jersey,⁴⁵ confirmed the above conclusions.

When it is realized that these playground attendance figures

⁴³ John L. Gillin, "Wholesome Citizens and Spare Time," *Cleveland Recreation Survey*, 1918, p. 181.

⁴⁴ *Recreation Report*, City Plan Commission, Toledo, Ohio, 1925, p. 33.

⁴⁵ R. O. Huus, *Analysis of Supply and Maintenance Costs of Hoboken Parks and Playgrounds*, Research Bureau, Hoboken Chamber of Commerce, Hoboken, New Jersey, December, 1925.

include in many instances men, women and children, and that playground directors seldom underestimate the attendance, it will be realized that only a small per cent of the population comes under the influence of this very important movement. In these estimates the total attendance which included many adults has been compared, not with the population of the city, but with the school population, making the actual percentages somewhat lower.

IV. GROWTH OF SEMI-PRIVATE AGENCIES

Into this complex situation come many semi-private agencies conducting activities which are legitimately carry-over activities of the public school. An allocation of the money raised for the community chest in nineteen selected cities indicates the portion of the budget which is apportioned to character building agencies. This proportion is noted on page 65.

When we realize the large amount of money which is being expended in this field we see that these semi-private agencies have really a place in the picture of the communities. This growth of the community chest movement is indicated as follows:⁴⁶

TABLE XVII

AMOUNT OF MONEY RAISED BY COMMUNITY CHEST SINCE 1922

	<i>Number of Cities having Community Chest</i>	<i>Approximate Total Amount Raised</i>
1922	49	\$23,656,000
1923	123	39,000,000
1924	180	48,850,000
1925	217	56,500,000
1926	251	62,922,000
1927	297	63,397,000
1928	Approx. 325	Approx. 66,000,000
1929	Approx. 350	Approx. 70,000,000

While these agencies are in no way equipped to universalize their activities, even though one claims to be reaching one boy out of every eight between the ages of twelve and fourteen, they must be taken into consideration by any unified city program.

V. SUMMARY

The activities of all of the agencies which have been considered in this chapter derive their funds from the public. Whether the

⁴⁶ Report of Association of Community Chests and Councils, Graybar Building, New York City, 1928.

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money is raised through the city budget, the school budget or the community chest, it comes from the same pocket-books. A halt must be made in the rising costs of schools and recreation. The increase in cost per capita for schools and recreation is indicated in the following table:⁴⁷

TABLE XVIII
INCREASE COST PER CAPITA FOR SCHOOL AND RECREATION
1903-1925

<i>Year</i>	<i>Total</i>	<i>Schools</i>	<i>Recreation</i>
1925	\$37.26	\$14.10	\$1.22
1924	35.61	13.52	1.15
1922	33.15	12.50	1.09
1919	21.63	6.88	0.74
1917	18.96	5.89	0.66
1915	19.45	5.58	0.68
1913	17.23	4.98	0.63
1911	17.62	5.04	0.65
1909	16.07	4.54	0.55
1907	15.95	4.42	0.51
1905	13.88	3.99	0.47
1903	13.19	3.86	0.35

In the field of public education when we consider the large aspects of laboratory activities it will be seen that all the agencies classified in this chapter must be tied up into one centralized plan. If this is not done there will be definite conflict in connection with time allotment for activities, space on which to conduct activities, classification and organization of participants, the activity program and leadership.

Our task is to simplify the machinery, to delegate specific responsibility, to centralize authority and increase the service to the individuals. Inasmuch as the very life of democracy depends upon the solution of these problems the following chapters will attempt to set forth ways and means by which progress may be made.

PROBLEMS

1. You are the superintendent of schools in a city of 100,000. There is in the city a park department and a playground department. Both the park and the playground departments have advisory committees consisting of prominent men and women. The park department offers opportunities for tennis

⁴⁷ *Financial Statistics of Cities Having a Population of Over 30,000*, Department of Commerce, Bureau of the Census, Washington, D. C., 1925, p. 398.

and golf and has available a number of athletic fields. The playground department has similar facilities. You, as the superintendent of schools, feel that the after-school activities which the child enters into should be part of the educational procedure, directed by the board of education, as a carry-over of the school program. What steps in reorganization would you take to bring about such a procedure?

2. You are the director of physical education and health of a city. The superintendent and board of education are anxious to use school facilities to the fullest extent possible during after school hours, evenings, and in the vacation periods. The board has authorized a budget for such a program. After the program has been in progress for a year the district attorney rules the expenditure of this money illegal because the activities being conducted are not educational. How would you proceed?

3. You are the director of physical education in a small city. The teacher-load of your staff is very heavy and you have not been able to procure any additional budget for it to assist with the after school athletics in the junior and senior high school or with the playgrounds in the elementary schools. The municipal playground department offers to come in and take over all the facilities at 3:15 o'clock and conduct and finance the program in the elementary, junior and senior high schools. The superintendent of schools has asked for your advice. What would it be?

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CHAPTER IV

MASTER PLAN FOR CENTRALIZING ADMINISTRATIVE AUTHORITY

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I. THE SITUATION HAS LEGAL DIFFICULTIES

The confusion of governmental responsibilities set forth in the last chapter has no single solution. All school procedures should assume the out-of-school time as a laboratory. This is especially essential in connection with physical education (definition and illustration, page 10). This brings the school and the park and playground department in definite conflict in many cities.

The situation is replete with legal and administrative difficulties. The city derives all its power from the state. In most of our states, city charters are acts of the legislature and are amended virtually at will by the legislature. In fifteen¹ states, however, cities have the constitutional power of home rule which permits them to draw their own charters and be somewhat less subject to legislative interference. Twenty-three² of our states have passed recreational enabling acts giving their cities broad power and discretion. The majority of school boards are quasi-independent units but are also the creatures of the state government.³ Under an old

¹ Arizona, California, Colorado, Minnesota, Missouri, Michigan, Nevada, Oregon, Ohio, Oklahoma, New Jersey, New York, Texas, Washington and Wisconsin.

² Alabama, Connecticut, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Massachusetts, Michigan, New Hampshire, New York, New Jersey, Ohio, Oklahoma, North Carolina, Pennsylvania, Rhode Island, Utah, Vermont, Virginia and West Virginia.

³ *Gunnison v. The Board of Education of the City of New York*, 176 New York 13. *Ridenour v. The Board of Education of Brooklyn*, 15 New York, Misc., 418.

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and thoroughly settled rule of law a delegated power may not be redelegated.⁴ Thus, though either a city or a school board may entrust its properties to mere agents, they may not delegate their powers over such property, for example, to each other.⁵

II. PRINCIPLES WHICH BEAR ON THIS PROBLEM

A. Two governmental agencies should not attempt to organize the same activities for the same people.⁶ This is good law and good sense. Anything else would involve confusion and irresponsibility.

An illustration of the violation of this rule is found where both the municipal park and playground departments and the school district organize playground activities for children. In many instances these areas are adjacent and hence there is a definite overlapping in connection with the use of space and the service rendered to children. An example of this is found in Los Angeles where some municipal playgrounds and school playgrounds are located side by side and are quite definitely competitive.

B. If the playground and recreation needs of children and adults are to be administered efficiently, there should be coördination of all local governmental and semi-private agencies concerned. This is equally obvious. There are many examples of successful coöperation of this sort.⁷

C. Additional open areas—parks, playgrounds, schoolyards, plazas, etc.—should be provided in accordance with a master city plan.

D. The legislative body of the municipality should have power to centralize in one administrative department such recreation activities as are under municipal control. The school should have assigned to it specific functions that will not overlap those of any other local governmental agency.⁸

E. With the rising cost of local government, emphasis must

⁴ *Clark v. Washington*, 12 Wheat. 40, 6L ed 544.

⁵ Detroit is a very good example of a city where the board of education entrusts school property to the municipal recreation department, as mere agents, on certain afternoons and in vacation periods.

⁶ Dillon, *Treatise on the Law of Municipal Corporations*, 5th ex., Vol. I, p. 616. Richard S. Childs, "A Democracy That Might Work," *The Century Quarterly*, Winter of 1930, pp. 6 and 7.

⁷ Examples of such cities are Baltimore, Maryland; Detroit, Michigan; Oakland, Long Beach and San Diego, California; Montclair, New Jersey; and Milwaukee, Wisconsin.

⁸ Such administrative set-up is found in Oakland, Berkeley, San Diego and Long Beach, California.

be directed toward securing additional returns and service from a better integration of present agencies and a more efficient use of present facilities.⁹

F. The state should give the legislative bodies of municipal corporations and school districts greater discretion to expend money from general or special funds for play and recreation activities.¹⁰

G. The legislature should authorize coöperative undertakings between various departments of a municipal corporation, two or more municipal corporations or, if possible, a municipal corporation and a board of education.¹¹

H. There should, perhaps, be some system of local popular initiative, so that the people of a community can force their governing bodies to institute particular types of playground and recreation service.¹²

I. In both municipal service and school service all playground and recreation leaders should be required to meet certain standards of education and training.¹³

III. DIVISION OF RESPONSIBILITY

Inasmuch as power that is once delegated by the state cannot be redelegated the solution of the problem seems to be in a division of responsibility within the local community. This division of responsibility is suggested in the table on page 75.

IV. SOLUTION

A. Responsibilities of the Three Groups.

1. *Pre-School Group—Play.* In the pre-school group activities must center around the home. This means the parents become the child's play leaders, or where this is impossible parents individually or by groups delegate the responsibility to trained leaders.

2. *School Group—Play.* The dominant principle in the school group is trained leadership. We are already committed to this type of leadership in the public schools because of compulsory edu-

⁹ Jay B. Nash, *Organization and Administration of Playgrounds and Recreation*, A. S. Barnes and Co., New York, 1928.

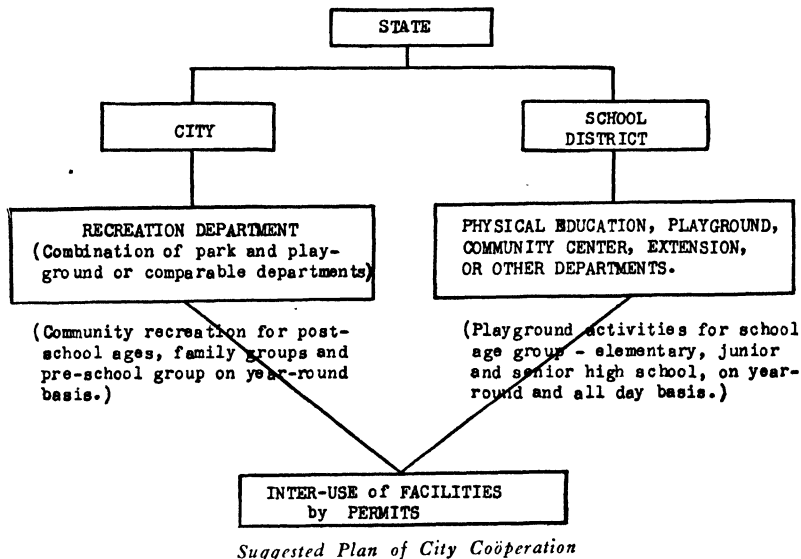
¹⁰ Examples of states with liberal statutes are Wisconsin, New Jersey, New York, Massachusetts, Iowa, and California.

¹¹ Examples of states with liberal statutes are Florida, New Hampshire, West Virginia, Georgia, Indiana, Kentucky.

¹² Examples of states with liberal statutes are Florida, Iowa, Massachusetts, New York, Ohio, Utah, Wisconsin and Vermont.

¹³ California by requiring certification sets specific playground leadership standards for school playground directors.

cation. In this group adult leaders, conscious of the children's needs, work out a program, classify the children, provide facilities, arrange for time in which to participate and furnish leaders. This is a very expensive process because the number of individuals one leader can organize is limited. It is assumed that play spaces¹⁴ and proper playground activities are the rightful heritage of every child.¹⁵ School playgrounds are located geographically to meet this need (pages 9 and 194).



3. *Post-School Group—Recreation.* In the post-school group an entirely different principle prevails. Individual leadership is

¹⁴ For a number of years the School Department has been operating a large number of school playgrounds after school hours and during vacation periods. The success of this extensive use of school playgrounds is apparent, as shown by the large number of children who have enjoyed these playground activities, which are always under the supervision of one or more trained attendants at each playground. The children are thus not only furnished wholesome recreation and exercise, but at the same time, not being on the streets, are removed from many danger hazards, such as those that result from the constantly-increasing automobile traffic and reckless driving. Wherever it can be shown that opening a playground will fill a real community need, the Board of Education will continue its present liberal policy of opening school playgrounds. *Statement on School Playground Activities* adopted unanimously by the Board of Education of Los Angeles, California, April 17, 1930.

¹⁵ *Secondary Schools of the Southern Association*, Department of the Interior, U. S. Government Printing Office, Washington, D. C., 1928, p. 70.—(The Association here reports that eighty per cent of the schools provide adequate athletic and playground fields.)

no longer imperative. Participation is voluntary. In this situation the leader becomes an organizer rather than a teacher, and confines his efforts largely to self-organized groups. It is a much less expensive problem than handling the school-age group. The leader is dealing to a large extent with wage-earning adults and activities should be largely self-sustaining, and hence not a great burden to tax-levying bodies. Money raised from taxation should be expended primarily for facilities and for intensive organization. Note discussion of recreation on page 137. The foregoing governmental plan is proposed to meet these three group problems (see cut on page 74).

In a plan similar to the one on the opposite page the overlapping of responsibility could be avoided. Here the city under a distinct department could conduct recreational activities as camping, picnicking, etc., for adults and for family groups. The school district under some department could organize play activities on the school grounds not only of the physical education type but of the musical, manual and nature study type. With the inter-use of facilities by permission, responsibility could be even more definitely allocated. Engelhardt and Engelhardt see in some such plan a wide utilization of the school plant. They say, "It is generally conceded that playgrounds serve the children and the community best when associated with the school in the center of population areas."¹⁶

The home must be helped by various governmental agencies to provide play for the pre-school group. Portions of schoolyards and of municipal playgrounds or parks may be utilized if they are easily accessible to the small child.

It is quite apparent that many school systems are not ready to assume responsibility for the play activities of the school-age child during the non-school periods. It is also apparent that certain school systems are heavily burdened with expenses which may for the time being make impossible the maintenance of an all-year-round play and recreation system. However, it is to be noted that the trend of the past decade has been for schools to assume this responsibility.¹⁷ The attitude of the children in connection with playing on these school areas is noted on page 80.

¹⁶ N. L. Engelhardt and Fred Engelhardt, *Planning School Building Programs*, Bureau of Publications, Teachers' College, Columbia University, New York City, 1930, p. 209.

¹⁷ Notable examples of places where the school is actually assuming such responsibility in various forms are Philadelphia, Pennsylvania; Chicago, Illinois; Los

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SUGGESTED DIVISION OF ADMINISTRATIVE AUTHORITY IN CONDUCT OF PLAYGROUND AND RECREATION ACTIVITIES TO AVOID CONFUSION AND CONFLICT

POST-SCHOOL GROUP

Age of Participants

- Up Organized by city park, playground, or combination of park
- 24 and playground, or comparable department. Permits from
- 23 school for use of school facilities in the evening.
- 22 (Use municipal parks, municipal playgrounds, county, state and
- 21 national park and land acquired on lease or loan.)
- 20
- 19

SCHOOL GROUP

- 18
- 17
- 16 Organized by the school on year-round basis. Under direction
- 15 of certified instructors and supervisors. Permit from city when
- 14 using land and equipment under city control.
- 13
- 12 (Use school yards, gymnasiums, swimming pools, etc.)
- 11
- 10
- 9
- 8
- 7

PRE-SCHOOL GROUP

Age of Participants

- 6 Organized in the neighborhood with parent coöperation. As-
- 5 sisted by civic organizations, playground and recreation commis-
- 4 sion, and board of education or any comparable department.
- 3
- 2 (Use vacant lots, back yards, roof gardens, garden courts, play
- 1 streets, etc.)

B. Legal Confusion Avoided. One of the merits of the plan shown on page 75 is that much, if not all, of the legal confusion can be avoided. Responsibility can be centered in definite govern-

Angeles, Oakland, San Diego, Long Beach, and Santa Monica, California; Columbus, Ohio; Wichita, Kansas; Tulsa, Oklahoma; Montclair, New Jersey; Utica, Bronxville, Albany, New York; and Baltimore, Maryland; and many of the counties in Maryland, Virginia, Pennsylvania, California, and other states.

mental agencies.¹⁸ This plan will also solve, to a large extent, many of the conflicts in administration which have centered around the following five major issues:

1. *Time.* Where two governmental agencies such as the school and the municipal playground are attempting to serve the school-age child, there arises a definite conflict relative to time. Both are competing for the child at the same hour, hence, there is a duplication of administrative machinery. This conflict is becoming more apparent as liberal school laws allow for the school facilities to be opened in the evenings and during the vacation period.

2. *Place.* Another definite conflict arises in connection with the place in which to conduct these activities. Progressive schools of the country are planning what they term adequate playground areas. If the municipality, on the other hand, duplicates this space it will be an expensive process. Inasmuch as the schools are geographically located in accordance with population and needs, the schoolyard seems to be the logical play area for the school age child (pages 66 and 82).

3. *Organization of Activities.* The school, through its carry-over activities in the departments of physical education, music, art, dramatics and handicraft, has very definitely come into conflict with the whole recreational movement. The school can no longer resist the demand of the public for an extensive use of its plant. Duplication of administrative machinery when other governmental groups conduct these activities is an expensive process.

4. *Organization of Participants.* All participants in activities must be classified in accordance with age and capacity needs by the schools and any other governmental agencies. If two governmental agencies are to classify participants of the same age, then there will be conflict. If the school is allowed to classify the participants of the school-age group and the municipal agencies, those of the adult group, some conflicts would be avoided.

5. *Leadership.* One of the most pertinent conflicts is in connection with leadership. If two governmental arms—the school and the municipality—are to deal with the school-age child, two sets of leaders must be employed on school days, one serving until 3:15 and another, from 3:15 until dark. This provides two sets of part-time leaders. Especially for the municipality it is im-

¹⁸ Agnes E. Meyer, "Education and Recreation," *Progressive Education*, Vol. VII, No. 2, The Progressive Education Association. Washington, D. C., March, 1930, p. 71.

MAP OF MINNEAPOLIS PARK SYSTEM - 1928

Showing The PLAYGROUND SITUATION

BOARD OF PARK COMMISSIONERS
MINNEAPOLIS • MINNESOTA •

THEODORE WIRTH, CHAIRMAN
ALBERT E. BERTHE, ASSISTANT ENGINEER
KARL D. RAYMOND, DIRECTOR OF RECREATION

LEGEND

Playgrounds and Areas they serve

Contemplated Playgrounds and Areas they would serve

City-Wide Playground

Residential Areas not provided with Playgrounds

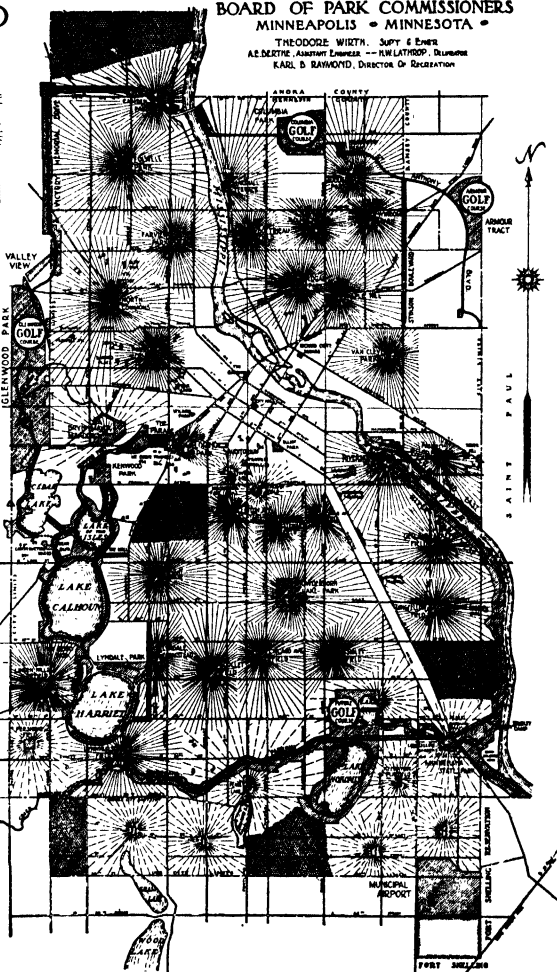
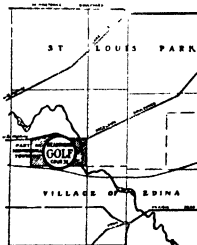
Park Lands other than Playgrounds

Areas in which Playgrounds are not required or requested

PARK AREA - 5,101.6 Acres
which includes
30 PLAYGROUNDS
containing 405.7 acres

SMALL PARKS INDICATED ON MAP BY NUMBER

- | | |
|------------------|--------------------|
| 1. Baker (1000) | 21. Jackson (1000) |
| 2. Baker (1000) | 22. Jackson (1000) |
| 3. Baker (1000) | 23. Jackson (1000) |
| 4. Baker (1000) | 24. Jackson (1000) |
| 5. Baker (1000) | 25. Jackson (1000) |
| 6. Baker (1000) | 26. Jackson (1000) |
| 7. Baker (1000) | 27. Jackson (1000) |
| 8. Baker (1000) | 28. Jackson (1000) |
| 9. Baker (1000) | 29. Jackson (1000) |
| 10. Baker (1000) | 30. Jackson (1000) |
| 11. Baker (1000) | 31. Jackson (1000) |
| 12. Baker (1000) | 32. Jackson (1000) |
| 13. Baker (1000) | 33. Jackson (1000) |
| 14. Baker (1000) | 34. Jackson (1000) |
| 15. Baker (1000) | 35. Jackson (1000) |
| 16. Baker (1000) | 36. Jackson (1000) |
| 17. Baker (1000) | 37. Jackson (1000) |
| 18. Baker (1000) | 38. Jackson (1000) |
| 19. Baker (1000) | 39. Jackson (1000) |
| 20. Baker (1000) | 40. Jackson (1000) |



Showing Distribution of Playgrounds in Minneapolis, Minnesota

The executive officer of the city called together the thirty-one ward politicians and said, "There are ninety-three playground positions open in this city. That means three apiece for you." In many cities playground executives are wholly at the beck and call of ward politicians. Some, on the other hand, have by means of state requirements been able to secure trained leaders (page 175).

V. LABORATORY ESSENTIAL TO SCHOOL PROGRAM

Where schools work upon a definite plan it has been found possible to secure a high percentage of play participation not only within the school day but after the closing hour for the schools. This is possible because school grounds are located where the need is greatest. The children are there on the ground and it is possible to organize them very efficiently. In many of the schools, schedules are arranged in connection with the regular school program, and the after-school participation becomes a very natural part of the total school day.²⁰

A. Where Do Children Want to Play? The claim has often been made that children do not want to play on school grounds because they have been there all day and have seen enough of their teachers. To determine the facts on this point some fourteen thousand children were interviewed relative to their preference.²¹ This survey demonstrated that children like to play where they have regular league games and where there are other children. Approximately forty per cent indicated very positively that they liked to play where they have the most games, and only four per cent indicated that they did not like to play at school because they had been there during the day.

B. Where Do Mothers Want Children to Play? Somewhat similar questions were asked of approximately fifteen hundred mothers through the aid of parent-teacher associations in various parts of the country. The mothers indicated that they would like to have their children play where there was good supervision and at places where they knew with whom their children were playing. Not a single mother out of the fifteen hundred indicated any objec-

²⁰ This plan has worked out very satisfactorily in Los Angeles, California; Tulsa, Oklahoma; Gary, Indiana; Bronxville, New York; Montclair, New Jersey; Columbus, Ohio, and many other places.

²¹ The answers were gathered from New York City, Rochester, Albany and Yonkers, New York; Houston, Texas; Los Angeles, Oakland, Pasadena and San Diego, California; Salt Lake City, Utah; Montclair, New Jersey; Chicago and Glenview, Illinois.

tion to having their children playing on the school grounds because of school discipline.²²

C. School Superintendents Favor School Conducting Playgrounds. The general thesis that the playground activities of the school age child should be administered by the school is indicated by a survey of sixty-seven cities over one hundred thousand population conducted by some of the officials of St. Paul.²³

The *Michigan Municipal Review* for June, 1930, indicates progress in connection with unification of recreation work in Lansing, Michigan. The bulletin of the Portland (Oregon) City Club for July 11, 1930, also urges centralization of authority for larger use of school and city facilities.

D. City Planning Experts Favor School Conducting Playgrounds. Leading city planners likewise believe that schools should be made responsible for the play of the school-age child. This proposal has been endorsed by Harland Bartholomew, St. Louis; the late George B. Ford, director of the Regional Planning Association of New York; John Nolen, of Cambridge, Massachusetts; Charles H. Cheney, of Los Angeles; and Professor Henry V. Hubbard, of Harvard University—all outstanding authorities.

Mr. Bartholomew says:

I agree most wholeheartedly that responsibility for recreation of the child of grade-school age should center around the school authorities. The child's life centers around the public school throughout the greater part of the day for nine months of the year. It is both wasteful and futile to attempt to set up a separate independent physical plant (such, for instance, as municipal playgrounds) for the nine months' school period or for the shorter summer session.

Mr. Nolen says on the same point:

We feel that the use of school playgrounds at all times, especially in vacation periods, is an economic measure, and that it tends to give the school a new significance as a community center for the neighborhood.

Mr. Cheney thinks that the only logical place for the child of school age to play is the school playground:

Play areas are essential here for school purposes. It is a criminal waste not to have these open after daylight all of the year. Providing other play areas is useless duplication, not only of areas, but of administrative overhead. If the school cannot because of finances immediately assume this respon-

²² Survey made by Jay B. Nash in the year 1929.

²³ *Mind and Body*, March 24, 1930, pp. 129-130.

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sibility, the joint plan to eliminate duplication of areas and duplication of administrative overhead is the only solution.

L. H. Weir, the representative of the National Recreation Association, who conducted the elaborate park survey during the years 1926 and 1927, said in his report:

The distribution of primary schools, of combined primary and intermediate schools, and, to a lesser degree, of the junior high schools is based upon reasonable walking distance from the homes of children. This applies to the rural district except in the case of the consolidated school, as well as in towns or cities. This principle of reasonable walking distance is exactly the principle fixed upon by the city planners and recreation planners for the distribution of children's playground areas.²⁴

Elsewhere Mr. Weir says:

There appears to be no fundamental reason, however, why in the average community a school building cannot provide the necessary facilities for indoor activities and needs of the children on the school playground.²⁵

The school can practically universalize play opportunities for children, as illustrated by the activities of the states of Maryland, California and Virginia, and the cities of Wichita, Kansas; Oakland, California; Columbus, Ohio; Niagara Falls, New York; Los Angeles, California; and Philadelphia, Pennsylvania.

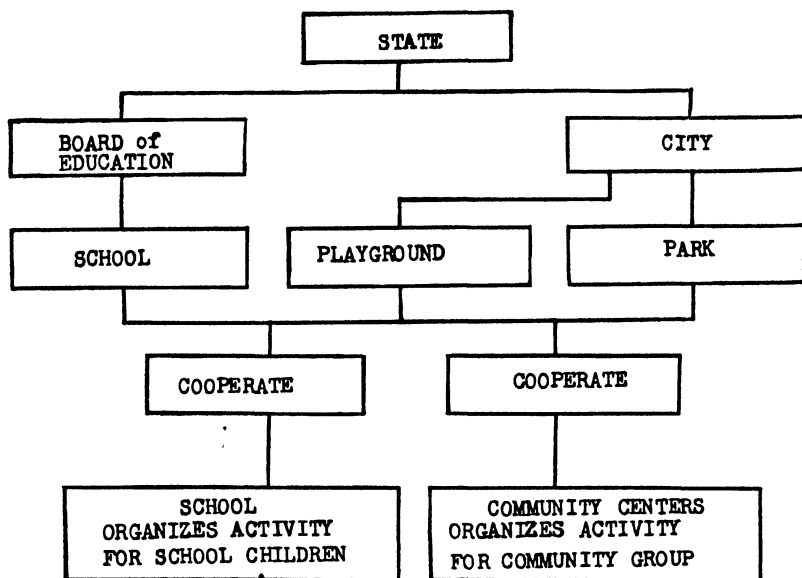
Minneapolis is a striking example of a city with a park department which has been able to reach a large percentage of the school-age group. It should be noted, however, Minneapolis has definitely planned to locate play areas within easy reach of all communities. Playground facilities for the school-age group in Milwaukee are provided by the extension division of the board of education.

VI. PLACE OF THE MUNICIPAL RECREATION DEPARTMENT

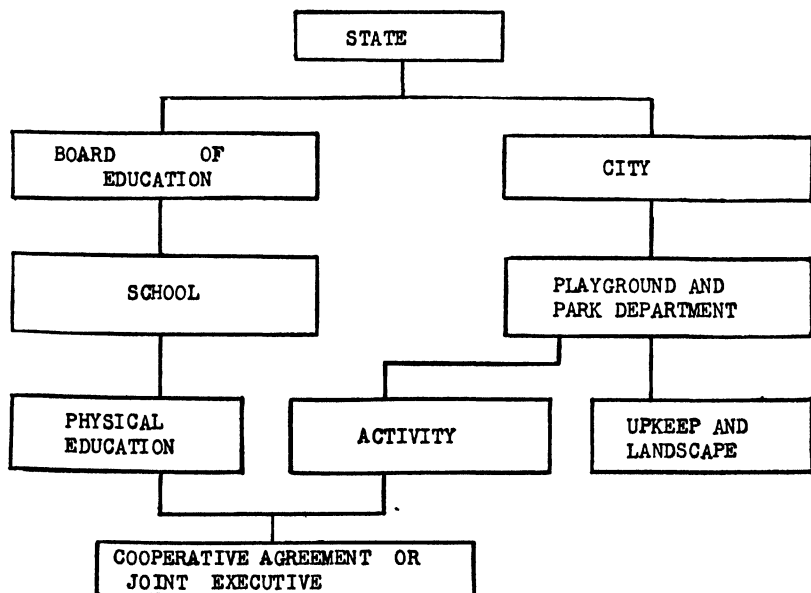
While now properly equipped to reach the school-age group, there seems to be no immediate likelihood that the schools will organize a real program of community recreation. By *community recreation* is meant that great range of activities for the adult and the family units such as golf, tennis, bowling on the green, fly-casting, camping, horseback riding, community music, dramatics, etc. Such activities must be centered in large parks and reserva-

²⁴ Parks, Vol. I, *A Manual of Municipal and County Parks*, edited by L. H. Weir, A. S. Barnes and Co., New York, 1928, p. 18.

²⁵ *Ibid.*, p. 125.



Cooperation by Division of Responsibility



Coöperation Through Joint Executive Directing Activity

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tions often in coöperation with national, state and county units, and necessitate the equipping of these large areas with stadiums, museums, botanical gardens, zoölogical gardens, golf links, camps, swimming pools, bridle paths, picnic grounds, children's theaters, municipal auditoriums, etc.

The school is sufficiently burdened to-day with the task of organizing play activities for the school-age group. Its finances will not permit any major extension of activities except the use of the school plant for play purposes on non-school days.

In this situation the combined park and playground departments have an unlimited opportunity in the adult and family leisure-time field. Properly organized, this department could be of almost universal service to the community. Relieved of the intensive supervision of playground activities as organized by the school, special attention could be given to the service needs represented by the adult and family groups. Examples of this broad service are to-day found in the park departments in Chicago, the recreation department in Los Angeles, the Playground and Athletic League in Baltimore, and the park department in Portland, Oregon.

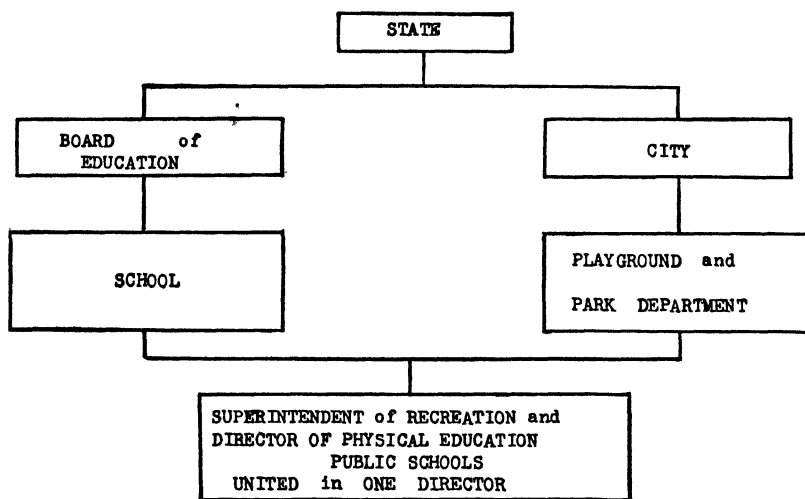
In many cities it would be possible at the present time for the municipal government to assume the responsibility for providing recreation for the adult group. Some recreational departments are well financed and are in the hands of exceptional leaders. In setting up a division of responsibility, the aims should be to eliminate overlapping, to cut down administrative conflict and to keep the administrative machinery as simple as possible. Many types of coöperation may be instituted pending a final solution. Several types of coöperation are here suggested:

In a city where there is a municipal playground department, a municipal park department and a school department, all organizing playground and recreational activities, coöperation might be secured in accordance with plan Number 1. The school board and the municipal authorities might concentrate their activities in the hands of one executive, as is the practice of Oakland, California; Winston-Salem, North Carolina; Houston, Texas; Tampa, Florida; Detroit, Michigan; Salt Lake City, Utah; Pittsburgh, Pennsylvania; Oklahoma City, Oklahoma; Cleveland Heights, Ohio; and Erie, Pennsylvania.

Where a combined municipal playground and park department exists the solution is much simpler as illustrated by coöperative plan Number 2. The activity arm of the municipal department could be tied closely with the school by means of a joint executive or by

means of a general coöperative agreement whereby the school took care of certain responsibilities and the municipality certain others. Examples of such plan are found in Dallas, Texas; Pasadena, California; Milwaukee, Wisconsin; Grand Rapids, Michigan; Denver, Colorado; Battle Creek, Michigan; Newark and Montclair, New Jersey; Ithaca, New York; El Paso, Texas; and Windsor and Kitchener, Canada.

Where the municipal activities are centered in one department, it would be possible to unite all of the activities of this department with the carry-over activities of the school by means of a joint



Coöperation Through Joint Executive

executive. This would be particularly applicable to cities ranging up to a population of 250,000.

One of the most urgent problems connected with the growth of cities is the provision of adequate space in which children's play activities can be conducted under skilled leadership. There are today indications that tax-paying groups in many of our cities are unwilling to increase their expenditures for facilities, equipment and leadership in the field of public play and recreation until every effort is made to use to their utmost capacity the facilities now provided.

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PROBLEMS

1. There has been considerable agitation in the city in which you are the director of physical education and health for the opening of playgrounds under the jurisdiction of the board of education from 3:15 to 6 o'clock in the afternoon of school days and in vacation periods. A mass meeting has been called by the superintendent to discuss the problem. A number of people are expected to take the stand that children do not want to play at the school. They will contend that the children want new scenery and that they have seen enough of their room teachers. You have been asked to speak on this question at the meeting. What stand will you take?

2. The superintendent of schools has proposed a bond issue for the enlargement of all of the play areas around the elementary schools. He has accepted a standard of five acres as a minimum and eight acres as a maximum. The finance committee of the city council is objecting to this procedure, contending that the playgrounds are little used, that the schools and playgrounds are closed half the days of the year—including Saturdays, holidays and vacations. From all indications the bond issue will not be approved so that it can go on to the ballot.

The superintendent has called a final meeting to see if the situation can be saved and has asked you, as the director of physical education and health, to use your influence to persuade the finance committee that his proposal is a wise procedure. What stand would you take and what arguments would you present?

3. A city planning expert has been employed to lay out your city from the standpoint of the growth of the next few decades. He has asked you, as the director of physical education and health of the schools, to give him your idea as to the place the school grounds should occupy in this master plan. What would you tell him?

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CHAPTER IV

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CHAPTER V

NECESSARY LEGAL MACHINERY FOR CENTRALIZING AUTHORITY

I. LEGAL MACHINERY NECESSARY TO CARRY OUT THE PRINCIPLES ADVOCATED IN THE PREVIOUS CHAPTER

The procedure for putting into effect the principles discussed above may be provided in several ways. In states with constitutional home rule provisions which allow cities to frame their own charters, there is little difficulty. In other states a legislative enabling act may be so worded that it also becomes a part of the school code and thus applies to boards of education.¹

A. Home Rule. Extension of the home rule principle is a necessary step to efficient local government. In many of the states where home rule is granted to local governmental units, it should be extended to include more units and especially the smaller ones. This may well be done without loss of the valuable services which the state may render in the establishment of certain state-wide standards of health, education and utility regulation.

Home rule provisions in such states as Wisconsin, Ohio and

¹ To make sure, however, that local communities have the legal right to expend tax money for the conduct of playground and recreation activities, Professor C. W. Tooke, of New York University Law School, believes that a state should have constitutional home rule provisions and, in addition, an enabling law passed by the legislature. In a letter to the author dated February 6, 1929, he says:

"In all the constitutions giving to the electors of a city the power to frame and amend the charter, a reservation is made that it shall be consistent with the constitution and general laws of the state. Subject to this restriction, such constitutional home rule provisions vest in the local electors the legislative power of the state. The sphere of local home rule thus created necessarily cannot be fixed, but will vary from time to time as the policy of the state may change to meet new conditions. Generally, we say that the home rule provision gives the electorate the full legislative authority to create and amend charters but subject to the existing general laws and those that may be later enacted. Thus, if there were no general enabling statute, the local electorate might confer powers upon the city to the same extent as the legislature could upon municipalities not under home rule charters. Certain powers for the time being may be able to be exclusively within the option of home rule, but the policy of the state may change and a given power cease to be purely municipal. This policy of the state is expressed in general statutes, which may enlarge the police power of the state. Many of the early general zoning ordinances were held to be unconstitutional by the state courts, but after a general enabling statute was passed, were later upheld by the same courts."

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New York are very broad. Texas allows home rule in cities of over 5,000; Oklahoma, for cities of over 2,000. Michigan, Colorado, California and Arizona have liberal provisions.

A review of local conditions indicates that home rule has reacted favorably in allowing municipalities an opportunity to operate playgrounds.

B. Recreation Enabling Acts.² A broad recreation enabling act should give to the governing bodies of the various local governments of the state blanket power to expend money raised by taxation for the establishment of playground and recreation centers without approval by local referendum.^{3, 4}

1. *Suggested Provisions of Enabling Act.* The enabling act should give broad latitude to the local community to carry out the intention of the act in the most convenient manner. The exact wording of the act will of necessity have to conform to the basic law of the state. The provisions which follow are merely suggestive and should not be taken literally. Enabling acts should be clear on the following points:

a. Governmental Units Affected. The bill should be sufficiently broad to include cities of various classes, towns, townships, villages, counties, school districts, and other local governmental units of the state.⁵

b. Acquisition of Land and Buildings. Local governing bodies should have the power to set aside in perpetuity, or for a definite period of time, any land which may now or hereafter belong to the government. The governing body should also be authorized to receive donations of land, to lease land, or in any other legal way to gain control of land within or without the city in accordance with the law of the state.⁶

c. Government Structure. Ample leeway should be allowed in the act so that control may be vested in the department of recreation, department of parks, department of parks and recreation,

² For full text of recreation enabling acts, see Jay B. Nash, *Organization and Administration of Playgrounds and Recreation*, A. S. Barnes and Co., New York, 1928.

³ If each governmental unit is required to hold a special referendum to authorize the expenditure of tax money for playgrounds, progress will be slow because of the cumbersome process involved.

⁴ Andrew G. Truxal, *Outdoor Recreation Legislation and Its Effectiveness*, Columbia University Press, New York, 1929.

⁵ See the enabling acts in Illinois, Michigan, New Jersey, New York, Ohio, Pennsylvania, Utah, and West Virginia.

⁶ On this point, see the enabling acts in Florida, Illinois, Massachusetts, Michigan, Ohio, and West Virginia.

school department, or any other appropriate existing department, board or commission.⁷

Where a special commission is appointed, it should be advisory, and its members should serve without pay for possible terms of five years. It is preferable to stagger the terms of such board members.

d. Power to Expend Tax Money.⁸ Local governments should be authorized, on the initiative of the governing body, to provide for the financial support, establishment, and maintenance of the various types of playground and recreation centers, including the employment of directors, assistants and staff members, and the purchase of necessary equipment and supplies. The board of education should have power to appropriate money from any available state or local funds.

e. Types of Activities. The governing body should have power to organize and conduct all phases of play and recreational activities, physical training, athletics, sports, games, league tournaments, or any other activities which in the judgment of the governing body shall promote the health, morals, education, welfare, or culture of the inhabitants of the city.⁹

f. Duties and Powers. The governing body should have power and authority to provide, establish, maintain, conduct, or supervise all of the activities enumerated above. It should be authorized to receive gifts, bequests of money, or any donation for temporary or permanent use.

g. Joint Control. The enabling act should provide that any two or more cities, towns, counties or school districts may jointly establish and conduct a system of recreation and playgrounds and may exercise all the powers granted by the enabling act. The act should authorize joint action by any two arms of the municipal corporation or joint action by an arm of the municipal corporation and board of education.¹⁰

h. Initiation of Action by the People. It should be possible for local communities to force governing boards to give effect to provisions of the enabling act. A petition signed by the requisite

⁷ See the laws of Florida, Georgia, Louisiana, Massachusetts, New Hampshire, New York, and West Virginia.

⁸ This should include the power to vote bonds for acquiring lands, buildings and other permanent property.

⁹ For examples of board of provisions, see laws of Connecticut, Indiana, New Hampshire, New Jersey, Pennsylvania, Utah.

¹⁰ Limited provisions for such joint action are found in the laws of Florida, Illinois, Indiana, Massachusetts, New York, Ohio, Utah, West Virginia.

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percentage of the qualified voters should be sufficient to require the governing body to submit the provision to referendum vote.¹¹

C. School Codes.¹²

1. *Scope of Authority of School Boards.* Several problems arise in connection with administration of playground and recreation activities by boards of education. These problems concern the



Courtesy of Redwood Empire Association.

Open Areas Must be Preserved for Recreation

scope of authority of the school board over expenditures for the following purposes:

a. *Authority to Expand School Money for Playgrounds on Legal School Days.* The power to conduct playground activities on school grounds on legal school days seems to be generally accepted throughout the country. Although in some states there seems to be no legal justification for the practice, it has never been questioned.

b. *Authority to Expend Money Raised by the Municipality*

¹¹ Examples of such initiative provisions are found in the laws of Florida, Georgia, Illinois, Indiana, Iowa, New York, Virginia and West Virginia.

¹² In some states the board of education may find in the general statutes the authority to conduct certain playground and recreational activities.

for Playgrounds. It is also clear that school boards are authorized to expend for playgrounds and recreation money which has been raised by the municipal government and which has been turned over to the school board for such purpose. Such practice is authorized in Florida, Illinois, Indiana, Kentucky, Massachusetts, New York, North Carolina, Oklahoma, Rhode Island, Vermont, Virginia and West Virginia.

c. Authority to Expend School Money for Playgrounds on Non-School Days. Does the school board have authority to expend school money, raised for the general support of education either from local or state sources, for playground and recreational activities on the school grounds and in school buildings on non-school days? Legal sanction for such expenditures is difficult to find. The commissioners of education in Vermont, Michigan, Ohio, Pennsylvania, Rhode Island, Connecticut, New Jersey, Arizona, Kansas, California, Minnesota, New York, Oklahoma, and Wisconsin feel that local boards have such power. These, it will be noted, are to a large extent states where broad home rule provisions exist, and in many instances where there are special enabling acts. The legality of using school money for the conduct of playground activities on non-school days is seriously doubted in many states. In an even greater number of states the school superintendents or the attorney-generals doubt the existence of any power to spend school money on non-school days.

2. *Opinions of State Superintendents of Schools.* The viewpoints of certain superintendents of schools are here noted:¹³

Alabama—The school laws of Alabama do not authorize the appropriation of public school funds to employ teachers and purchase athletic supplies for use on days when the school is not actually in session.

Delaware—School laws of Delaware make no provision therefor.

Florida—Our statutes do not appear to contemplate the use of tax money for the employment of teachers nor for the purchase of athletic supplies for the use of school playgrounds after the regular school session on school days.

Idaho—The law makes no provision whereby moneys may be used for hiring of teachers for the supervision of playgrounds for Saturdays and vacations.

Mississippi—The school laws of Mississippi do not permit the expenditure of public school funds for playground activities during summer vacation and on Saturdays.

Montana—As our school law now stands, I believe it is legal to purchase

¹³ Quoted from letters to Jay B. Nash, 1929.

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equipment for playground use for Saturdays and vacations, but I do not think we are authorized to spend money for an instructor during the summer vacation.

Nevada—I mean by this that equipment and playgrounds are available to the children of this state after school hours, quite often on Saturdays and during the short vacations in the school terms; however, I do not know of any school employing a regular athletic or playground supervisor during the summer months and I do not think that children have access to playground and equipment during the summer months.

New Hampshire—I think expenditure for playgrounds in the summer time is illegal.

North Carolina—So far as I know, there is no legal authority for the employment of teachers and supervisors on summer playgrounds.

Tennessee—Inasmuch as the Tennessee laws are silent on this subject, we doubt the legal right of school authorities in this state to make such appropriations.

Texas—I am inclined to the opinion that the school laws of this state do not authorize the expenditure of tax money for the support of playgrounds on the schoolyards during the summer vacation.

Washington—No regular routine school activities are permitted upon Saturdays or certain designated school holidays, nor are boards authorized to make expenditures for school purposes on those days. This also applies to vacation periods.

Wyoming—We have no law covering this matter.

3. *Opinions of State and Attorney-Generals.* The power of the schools to expend money on summer playgrounds is also denied by the attorney-generals in the following states: ¹⁴

Florida—It would not be legal under our laws to use any part of the school money for the support of playgrounds by themselves, although of course such money can be used for the support of playgrounds in connection with the operation of the schools, as that would be a part of the expense of maintaining a school.

Georgia—The school funds of this state, so far as are controlled by municipalities, would be available, under their rules, for contribution to the support of playgrounds; but the money going to the public schools of the state through the county boards of education would not be available, under the present laws, to support enterprises of that character.

Iowa—Under the laws of this state and under the rules of this department, school boards cannot purchase athletic equipment for use in the schools either in regular school session or during the summer.

Kentucky—Under the present Kentucky laws, it would not be legal for tax money raised for school purposes to be expended to maintain such playgrounds when the regular school term has ended.

¹⁴ Quoted from letters to Jay B. Nash, 1929.

South Dakota—So far the school laws have not provided for expenditure of money raised by public taxation for summer playground purposes. Without such law it would, of course, not be legal in this state.

Tennessee—There is no specific authority under our school law for the expenditure of school money for the support of playgrounds in the school-yards during the summer vacation and on Saturdays.

West Virginia—The school laws of this state do not authorize the expenditure of money for playgrounds on school property during summer vacation, nor the employment of teachers and the purchase of athletic supplies when school is not in session.

4. *Suggested Provisions for School Code.* It is very important that all general provisions in the school code in relationship to community centers, extended use of the school plant, vacation schools, school playgrounds, etc., should be classified and codified. The school code should definitely include the following points:

a. Governing Boards. Local boards of education should be given broad authority to conduct play and recreational activities for children and adults on any and all types of school property, on any school day or non-school day, using any state, county, or district money which may be available for educational purposes.¹⁵

b. Facilities. The school code should make clear that all school facilities, including auditoriums, gymnasiums, swimming pools, shops, laboratories, and other rooms, together with school-

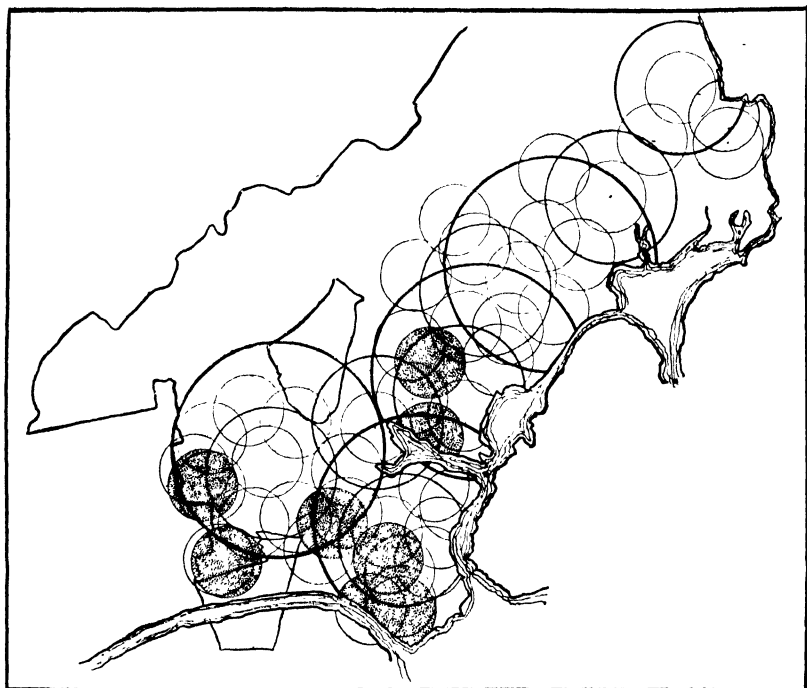
¹⁵ In Michigan, "any school district may operate a system of public recreation and playgrounds, and may vote a tax to provide for the operation of same." In New York, "schoolhouses and the grounds connected therewith and all properties belonging to the district shall be in the custody and under the control and supervision of the trustees or board of education of the district. The trustees or board of education may adopt regulations for the use of such schoolhouses, grounds or other property, when not in use for the school purposes." New Jersey provides that, "the board of school estimate shall fix and determine the amount of money necessary to be appropriated to the board of education for the use of such public playgrounds and recreation places for the ensuing year, the amount so fixed and determined to be included in the certificates of the amount of money appropriated for the use of the public schools in such district for the ensuing year, and the board of commissioners or other governing body of such municipality shall appropriate said amount in the same manner as other appropriations are made by it, and said amount shall be assessed, levied and collected in the same manner as moneys appropriated for other purposes in such municipality shall be assessed, levied and collected, under the same conditions and with the same restrictions as now exist in such municipality." On the other hand, Maine provides that, "amounts received by the towns from the state school fund may be expended by said towns, in conjunction with such funds as the towns shall raise and appropriate, for the following purposes in both elementary and secondary schools; the payment of teachers' wages and board, fuel, janitors' services, conveyance, tuition and board of pupils, textbooks, reference books and school supplies for desk or laboratory use. The unexpended balance of all moneys raised by towns or received from the state for the above purposes shall be credited to the school resources for the year following that in which said unexpended balance accrued."

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yards, shall be at the disposal of the community when not in actual use for purposes prescribed by law.

c. Groups to be Served and Types of Activities. The school code should prescribe that these facilities should be made available to any group of citizens formed for recreational, educational, political, economic, artistic, cultural or moral activities.

d. Initiation of Activities. School codes should be so broad



Distribution of Municipal—Shaded—and School—Unshaded—Playgrounds in Oakland, California—Note that the Shaded or Municipal Area by No Means Serve the Entire City.

that the board of education may on their own initiative conduct the activities referred to above. It should also provide that these boards shall, upon petition of the requisite percentage of qualified voters, submit the question of exercising the powers granted for any specific purpose to the vote of the people.

e. Cooperation with Other Governmental Units. The school code should authorize the coöperation of boards of education with each other, with other governmental commissions and with boards

having the custody and management of public parks, playgrounds, libraries, museums, recreation centers, etc.

f. Financial Support. The school code should authorize financial support of activities outlined in the act in the same manner as all other money for public education is acquired. Playground activities operated on any day of the year should be considered educational activities if so designated by the local boards of education so that state, county, or district money may be expended for their support. Boards of education could then establish playgrounds just as they equip science laboratories, or establish a department of manual training or music.

g. Certification of Teachers. The school code should set a minimum educational qualification for teachers at the playgrounds, recreation centers, and other places where recreational activities are conducted.¹⁶

h. Time for Conducting Activities. The school codes should authorize boards of education to conduct play and recreational activities for children or adults on regular established school days, on non-school days, in the afternoon or evening of the same, or at any time deemed wise by the said board.¹⁷

¹⁶ An example of an approved certification law is that of California:

A credential, valid for directing activities on a school playground which is open to the public outside of school hours, may be granted to an applicant who presents:

I. A certificate from a physician licensed to practice medicine and surgery, certifying that the applicant is physically and mentally fit to direct activities on a school playground.

II. A recommendation from the school superintendent or employing principal in the city or district in which the playground is situated that the credential be granted for a specific position.

III. Two years of college training, or its equivalent, beyond graduation from a four-year high school.

IV. A minimum of four semester hours chosen from the following: (1) principles of community recreation; (2) technique of teaching games of low organization; (3) community dramas; (4) community music; (5) handicraft; (6) story telling.

This credential authorizes the holder to direct activities on a school playground, and is not valid for teaching any part of the physical education program connected with the public schools.

This credential will be granted for a period not longer than one year, and may not be renewed. A full form of application will be required each year.

¹⁷ As an example of school codes which fulfill to a large extent the provisions here suggested, the following clauses are cited from the laws of Wisconsin, relating to common schools:

Sections 43, 50. *Use of school buildings and grounds for civic purposes.* 1. Boards of school directors in cities of the first, second or third class may, on their own initiative, and shall, upon petition as provided in subsection 2, establish and maintain for children and adult persons, in the school buildings and on the school grounds under the custody and management of such boards, evening schools, vacation schools, reading rooms, library stations, debating clubs, gymnasiums, public playgrounds, public baths and similar activities and accommodations to be determined by such boards,

D. City Charters.

1. *Suggested Provisions for City Charters.* The charter should provide for the play and recreation system, and should specify the department or board which is charged with its administration. The charter should have the following general provisions:

a. General Powers. In the general section of the city charter, apart from the section on recreation, the general powers of the city should refer to control over recreational facilities. The Oakland, California, charter, for example, gives the city the power, among other things, to "maintain all other public buildings, places, works, institutions, and establishments whether situated inside or outside of the city limits, which may be necessary or convenient for the transaction of public business or for promoting the health, morals, education, or welfare of the inhabitants of the city for their amusement, recreation, entertainment or benefit."

b. Combination of Park and Playground Activities under a Recreation Department. If this is to be done, it must be specified by the charter.¹⁸

c. Use of Inclusive Terms. Narrow terms that are difficult to define should never be used. The term "children's playground" is an example. It is advisable to use phraseology as follows:

All parks, squares, plazas, public pleasure grounds, public playground, recreation centers, and summer camps, now or hereafter owned or controlled by the city, either within or without its limits, shall be under the exclusive control and management of the board of park and playground directors. Said board shall have supervision, direction, and control of all games, recreation, athletic sports, physical exercises, and social activities to be conducted in any of the parks, playground, or recreation centers of the city. Said board shall have power to organize and conduct physical tournaments, and pageants in

without charge to the residents of such cities, and may cooperate, by agreement, with other commissioners or boards having the custody and management in such cities of public parks, libraries, museums, and public buildings and grounds of whatever sort, to provide the equipment, supervision, instruction and oversight necessary to carry such public educational and recreational activities in and upon such other buildings and grounds.

2. Upon the filing of a petition with the city clerk, signed by not less than ten per cent of the number of voters voting at the last school or other election in such city, the question of exercising the powers granted for any of the purposes specified in subsection 1 shall be submitted to the electors of the school district at the next election of any sort held therein, and if a majority of votes cast upon such question shall be in the affirmative, the board of school directors shall exercise said powers in accordance with said petition, pursuant to this section.

¹⁸ See Alabama playground and recreation enabling act as an example of legislation authorizing this; reprinted in Jay B. Nash, *Organization and Administration of Playgrounds and Recreation*, A. S. Barnes and Co., New York, 1928.

and upon the playgrounds and recreation centers owned or controlled by the city, and also in and upon other grounds, athletic fields, gymnasiums, swimming pools, and other suitable playground facilities for such purpose. Said board shall also have power to organize and conduct walking and other outing excursions and events to points either within or without the city limits.

d. **Authority to Use Other City or Private Property.** It will be to the advantage of the city to be able to use church gymnasiums, athletic fields, and other types of private property on a lease or a loan basis. The following phraseology is suggested:

The city council shall have the power by ordinance to set aside, either in perpetuity or for a definite period of time, any lands belonging to the city for use as parks, public playgrounds, recreation centers, and summer camps, and the same shall be under the exclusive control and management of the board of park and playground directors. Said board may also make contracts for the donation or lease to it of the temporary use of parks, playgrounds, camp sites and of grounds, athletic fields, gymnasiums, swimming pools, and other suitable places for the conduct of leagues, tournaments, pageants and other recreational activities.

e. **Power to Make Rules.** The charter should give the board of park and playground directors the power to establish rules and regulations and the power to enforce these rules. The following wording is suggested:

The board shall adopt rules and regulations for the government of the aforesaid parks, playgrounds, recreation centers, and summer camps, and for the conduct of the aforesaid activities, leagues, tournaments, pageants, and excursions, not inconsistent with the ordinances of the city or of the laws of the state or with this charter.

f. **Power to Receive Gifts.** The following phraseology is suggested:

The city council may, in behalf of the city, receive donations, legacies, or bequests for the improvement or maintenance of said parks, playgrounds, recreation centers, and summer camps, or the acquisition of new playgrounds, recreation centers, and summer camps; and all moneys that may be derived from such donations, legacies, or bequests shall be deposited in the treasury of the city, and shall be withdrawn therefrom and paid out only in the same manner as is provided for the payment of moneys legally appropriated for the support and improvement of such playgrounds, recreation centers, and summer camps. If the moneys derived from such gifts, bequests, or legacies shall at any time exceed in amount the sum necessary for the immediate expenditures for the acquisition, maintenance, or improvement of parks, playgrounds, recreation centers, and summer camps, the city council may invest

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all or a part of the sum in interest-bearing bonds of the United States or of the state or of any municipality or school district thereof.

g. Revenue from Income-Producing Activities. All money collected from income-producing recreational activities should be deposited in the general fund of the city to be expended in the regular manner; but the income from such source should be clearly shown as a separate revenue in the annual budget, and the cost of such revenue-producing activity should also be shown in the schedule of expenditures of the operating department.

h. Cooperation with Other Municipal Departments and Boards of Education. The Fort Worth, Texas, city charter for example gives the park board

the power, with the consent of the school board, to organize and conduct play and recreational activities on grounds and in buildings under the control of the school board, provided that nothing in this section shall be construed to abridge the power of the school board to refuse the use of any of its grounds or buildings; it shall have power to equip, operate, supervise and maintain playgrounds, athletic fields, swimming centers and other recreation facilities on or in properties under the control of the park board; it shall have the power to take charge of and use any grounds, places, buildings or facilities which may be offered, either temporarily or permanently, by individuals or corporations, or other person whomsoever, for playground or recreational purposes.

PROBLEMS

1. You are an interested citizen in a city which has no adequate recreation department. There is agitation for a new city charter. A charter committee has been appointed. It has been advised, however, by the attorney-general of the state that the form of government must conform to the legislative code governing the city. The committee insists upon the privilege of drawing its own charter. They insist upon the right of home rule. This is denied by the attorney-general. What steps could be taken so that it would be possible for the city to frame its own charter?

2. You have been asked to serve as a member of a state legislative committee which is sponsoring a recreation enabling act. The question has arisen whether the park department and the playground department shall be separate organizations, or whether they shall be combined into a recreation department, with a governing board which is known as the park and playground commission. What would you advise?

3. You are a director of physical education and health in a city which has been hiring playground leaders to conduct activities on the school playgrounds on Saturdays and during the summer vacations. The attorney-general of the state has ruled the expenditure of money, on days when school

is not in session, as illegal. Your community desires to continue the practice and has asked for your advice. What would you say?

4. You are desirous of conducting a school camp outside the limits of your school district. The move has been declared illegal because the location is outside of your school district. What steps would you take to make this a legal procedure?

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CHAPTER V

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PART II. SELECTING OBJECTIVES

CHAPTER VI

THE OBJECTIVES OF PHYSICAL EDUCATION

Where are we going? What do we hope to accomplish by means of an ideal program of physical education? Assuming that we could have a controlled group of children from an early age to the end of adolescence, in an ideally organized physical education program, with sufficient time devoted to the activity, with as much space as could be profitably used, with the children properly classified, and with a proper selection of program under adequately trained leaders, what would we hope to accomplish?

Physical education must look to sociology and philosophy for the desirable outcome of education. From these objectives should be selected those that can most easily be accomplished through the type of activity represented by physical education. Once having selected these objectives, administrative procedure would be simplified. These objectives would be a guide in determining every policy. At every cross-road the right turn could be made. What are the objectives?

I. FOUR-FOLD DEVELOPMENT

When we look at human life it may be viewed upon four levels, namely, the *organic*, the *neuro-muscular*, the *interpretive-cortical*, and the *emotional-impulsive*.

The figure on page 6 sets forth this hierarchy.

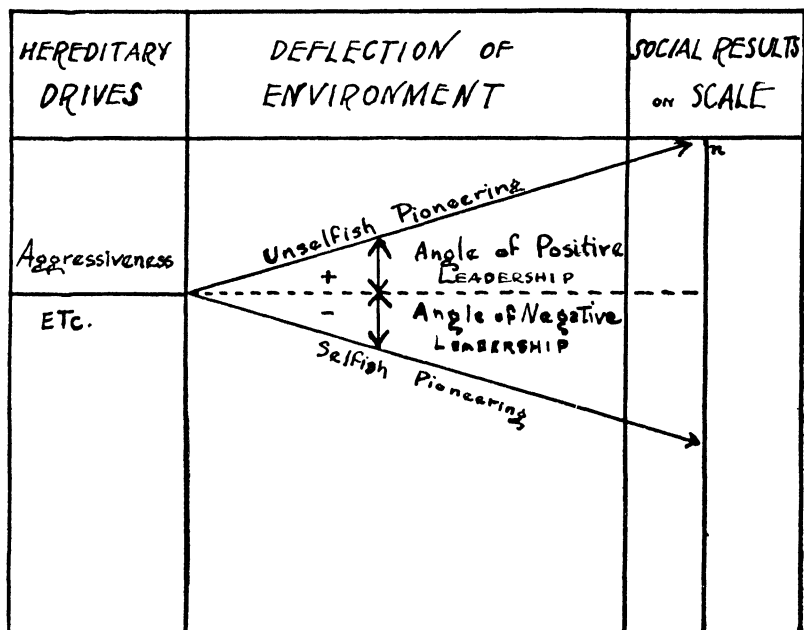
The known base of this pyramid is living protoplasm. On this level we seek *organic power* and if this is developed in accordance to a standard we will come to accept definite types of body beauty. The Greek ideal is an example. This beauty power, if it can be made the base for the selection of mates, will continue to be of increasing importance to the human race.

Neuro-muscular development is the next level. It is important here to note that this level includes the organic, but adds a growing edge of its own, namely, a beauty in skill, poise and rhythm of action. This is the beauty in action which R. Tait McKenzie portrays. This beauty can become immensely important in life. This development is sub-cortical.

The next level represents *interpretive-cortical* development. It

includes all of the neuro-muscular and organic, but also adds a growing edge. Here we have a beauty in keen analysis, diagnosis, and intellectual honesty. This beauty in keenness will play an important rôle in the progress of humanity.

Essential as these three levels are, they may become a liability to society rather than an asset. The ranks of our gangsters and racketeers are filled with three level men. Our prisons are crowded with them and the results of recent years show that our political



Showing Deflection of Hereditary Urges by the Environment

life, even at times our courts, are filled with three level men. Men who are intellectually keen, and who have neuro-muscular coördination and organic power are dangerous.

If human progress is to be guaranteed the fourth level must be added, namely, the *emotional-impulsive*. The old philosophy of scholasticism has played a trick on us. We believed for hundreds of years that a knowledge of facts would guarantee behavior. Now we are realizing that many times facts alone merely enable us to perceive with extraordinary clearness the duty of some one else. Health rules, traffic rules, moral rules, any rules may be perfectly

well known and never followed. In order to affect behavior there must be a *want*, an *emotional drive* which results in action.

The emotional-impulsive level includes all of the organic, neuromuscular and interpretive-cortical and adds a growing edge of its own. This edge makes us feel beauty in the sparkle, radiance and zest of human kindness in vying to serve one's group. We have here an entity which reaches out to other as yet undefined levels. It is this edge which transforms the intellectually keen but selfish individual, the most dangerous enemy of society, into an intellectually keen, unselfish pioneer in the field of humanics.

No education is worthy the name that does not have a contribution to all four levels. No phase of education can deal merely with one level. Activity on one level affects other levels. During activity every level is affected from the remotest and lowest to the highest and most intricate, including the whole emotional-impulsive drive. Nothing remains as it was before.

It is impossible to think of a child doing one thing at a time on any of the levels, for every act includes all. It must be immediately apparent how illogical it is to speak of *physical activity* merely on the organic level, or *mental activity* merely on the interpretive-cortical level, and even more impossible to speak of emotional-impulsive activity without consideration of the other levels.

Oneness of mind and body and spirit become keynotes. How impossible then to select specific educational objectives, to segregate them into details, and to select one objective as your contribution to life.

Health is on every level, vocational education is on every level, music, manual training, are on every level, leisure time, and every activity and every objective and outcome are on every level.

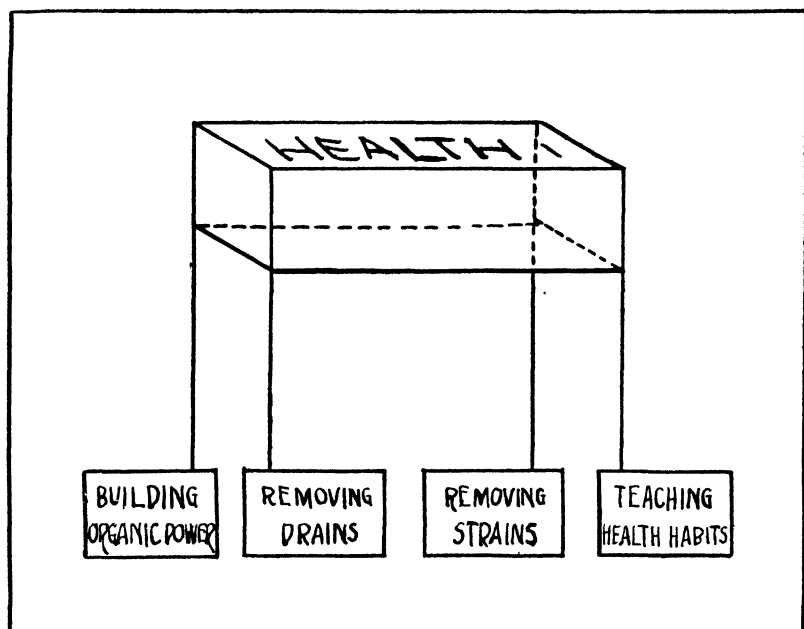
An attempt will be made here to discuss development and to point out integration in connection with these four levels,—all this in relationship to the possible contribution of physical education activities to general education and to life.

A. Organic Development. Organic development from the standpoint of physical education refers to the ability of the organism to acquire physical power through training.¹ Synonyms would be: vitality, vital reserve, endurance, resistance to fatigue. As a matter of illustration we might point to development as that degree of endurance which is present in the adult as contrasted to the in-

¹ Clark W. Hetherington, *School Program in Physical Education*, World Book Co., Yonkers-on-the-Hudson, New York, 1922, p. 35.

fant or, on the other hand, as that vitality which is present in the trained athlete as compared to the man of the street.

The following figure illustrates the elements which are essential in acquiring organic power.



Fundamental Elements in Building and Maintaining Health

We might call the person high on the scale of organic power, healthy. Hence, this diagram indicates elements in the building of power.

We have previously indicated the relationship of physical education and health,—that health is an *objective* and physical education is a *process*. This thesis will be here elaborated.

1. *Factors in a Power Building Health Program.*

a. Development of Organic Power Through Big Muscle Activity. We have known in general terms that organic power can be built. We have seen it built in athletes and mountain climbers. We have seen it built in dogs and horses that have been trained for the track. Institutional education has not recognized the necessity for education on the organic power level because for ages this

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power has been a natural by-product of the way in which people lived.

In the very fiber of the race are the roots of an activity drive. A thousand hereditary urges, hungers, or drives, have pushed the child forward in a round of challenging big-muscle activities. No one has had to drive the child to the game, to the hunt, to the pool or to the chestnut tree and berry patch.

Organic power was built as a by-product. Play was accepted as "a child's way," unrecognized by parents and other educational leaders as a biological necessity. To-day in many instances the opportunity for big-muscle activity is lacking. City life has reduced the challenges which involve big-muscle activity and a mechanical civilization has put machines to work.

Physiologists are now beginning to say, "What were the values, from the standpoint of racial stamina, of those childhood play activities involving big muscles?" Physiologists now tell us exactly what has been happening to the human organism throughout all these years under the impetus of big-muscle play activity.

To understand what we mean by organic development it is necessary for the moment to look at the body in a strictly biological sense. The body must be viewed as a community of cells.² Organic bodies range from colloidal dimensions to organisms of one cell or a few cells through organisms such as the human body containing, according to various estimates, cells numbered into the trillions.³

The unicellular organism has two outstanding functions: to digest food and to reproduce. Digestion is accomplished by means of absorption. Reproduction, in the simplest instances, is by division of cells. Such cells are usually immersed in liquid.

The cell is the visible physiological unit of life. In the human organism a great community of cells has been built—some specializing on digestion, some on reproduction, some on elimination, others on carrying messages, others on carrying food and oxygen to various parts of the body, and still others on keeping us in touch with what is going on in the outside world. Each cell is composed of a living substance call protoplasm. For the human organism to live, as in the lower cellular organism, two functions must be performed,—reproduction, which in the human organism is delegated to certain communities of cells, and nutrition, the ability of the cell to

² John Mason Tyler, *Growth and Education*, Houghton Mifflin Co., New York, 1907, p. 25.

³ Conklin has estimated that the human adult is a mosaic of over 27 trillion cells, 9 billion 700 million of which are assigned to the central nervous system.

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maintain itself in a functioning capacity. Thus in the living cell we see three types of non-living material—food substances on the way to the tissue, stored food material, and waste products waiting to be carried away from the cell. Welpton says:⁴

“It is seen, then, that the living cell manufactures many kinds of substances from the blood that bathes its surface. Some act as reserve foods, some are used in the frame-work of the body, some are necessary to the bodily economy, while some are harmful and must be got rid of. All, however, are the result of the ceaseless changes taking place in the living tissue. Some are formed in the ascending stage, when food is being built up into living substance, others in the descending stage, when living substance is undergoing decomposition; others may never have been part of the living substance at all, but formed as remainder products from the action of the living substance on the food.”

So far as we know new striated muscle or nerve cells are practically not formed after birth. For the purpose of definition, growth from littleness to bigness has to do with increase in size of the cells. The mass of an organ may increase in bulk by the multiplication of connective tissue units as takes place in the brain where the neuroglia cells are responsible for the dimensions of the adult as contrasted with the child brain.

This conception of the human organism as a community of cells, with the cells as the seat of life, gives us a conception of how power is built. Note the power building cycle. The living cell at birth has stored within itself small quantities of food such as glycogen and fat. At the time of exercise—muscular contractions—this food is burned and with the burning, heat and energy is released. This may be likened to burning of coal in a furnace. Heat and energy are released, waste products are eliminated and more coal must be forthcoming if more heat and energy are to be released. Unused clinkers must be raked out of the furnace.

We have the following cycle:

- (1) Exercise.
- (2) Burning of stored material.
- (3) Releasing of heat and energy.
- (4) Elimination of wastes.
- (5) Taking in more food from the blood.
- (6) Gaining more capacity to store food.

- (1) Exercise.
- (2) Burning of stored material.
- (3) Etc.

⁴ W. P. Welpton, *Physical Education*, Warwick and York, Baltimore, 1908, p. 105.

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It reminds one of the Iowa farmer who, *bought more land, to raise more corn, to feed more hogs, to get more money to buy more land, etc.* Each cycle in the period of development increases until we have pyramided power from that possessed by an infant to that possessed by an adult, from that possessed by a man of the street to that possessed by a trained athlete.

All of the organic mechanisms including digestion, respiration, circulation, heat regulation, have one function, namely, supplying the conditions under which food may be burned and wastes removed. The cycle is simple. As a first step in digestion food is taken into the body, or, in other words, a long freight train of raw materials passes through the body. These raw materials are prepared by a chemical process for absorption into the blood. That which the system needs is absorbed, the "clinkers," unused materials, rejected materials and bacteria, are eliminated.

Food material is carried by the blood to the cells. The cells take from the blood that which constitutes their immediate needs. The circulatory system is a distributory system for transporting food and oxygen and eliminating waste—corresponding to the railroads, docks, wholesalers and retailers of a great city.

The body contains approximately thirty trillion cells which must be fed. One form of indigestion might be likened to a strike of truckdrivers, in which food could not be gotten into distributive channels.

In the process of distributing food the blood also distributes oxygen—carried by the red corpuscles. It also carries waste material to the kidneys and carbon dioxide to the lungs.

Respiration must be viewed in its external and its internal aspects. External respiration gets oxygen to the lungs where it is exchanged for carbon dioxide. Internal respiration has to do with the taking up of the oxygen by the cells—there to be used for the purpose of combustion.

It becomes obvious that the whole body is one functioning unit. It is a great mosaic in which a harmonizing and an intergradation of the whole is necessary for life. Power and life are resident in a cell. All of the body functions have to do with the preservation of life in the cell. All breathing is done by the cell, all eating is done by the cell, all power building is within the cell. The whole process of feeding these cells is what we would term nutrition. We will note later that the other levels of development affect nutrition.

Exercise is the one element which can heighten the whole nutritive system. It starts the whole nutritive process—*food material*

is burned, a call is made for oxygen, circulation is stimulated and all the other body functions are heightened. The old phrase "we breathe with our legs and run with our heart" takes on new meaning. We breathe with our legs because the legs used in big muscle activity constitute the great bulk of our cells. We run with our heart because we depend upon our heart to deliver oxygen and food and to remove wastes.

It is apparent then that gorging oneself with food does not increase body power. It merely clogs the distributing system. Taking in additional air through deep breathing does not increase the amount of oxygen used by the cells, for the red blood corpuscles will pick up only the amount "called for" by the cells.

Physical training increases or heightens the body functions. But when and how and under what circumstances, are the questions which physiology is now asking.

Lagrange says,⁵ "It is a law of vital movement that function strengthens the organs whereas the working of a machine wears out its wheels."

Schneider also points out beneficial changes.⁶ "We find that regular exercise and a period of physical training cause several beneficent, fairly enduring adaptive changes of the blood. By these the capacity for work and the power of endurance of the body are enhanced."

Hill summarizes a number of things which may happen in this power building process.⁷

We now know that one of the important functions of the blood is that it serves as a chemical buffer. This acidity of the blood must be kept constant or death would be immediate. Yet during physical activity large quantities of lactic acid are thrown into the blood by working muscles without acidifying it. It has been found that it is possible to increase the capacity of the blood to act as a buffer, and hence make possible more activity.⁸

It has been found that men can climb mountains with less fatigue and less oxygen if they are trained.⁹ The crestload of

⁵ Ferdinand Lagrange, *Physiology of Bodily Exercise*, D. Appleton and Co., New York, 1905, p. 171.

⁶ Edward C. Schneider, *Thirtieth Annual Proceedings*, Society of Directors of Physical Education in Colleges, Harry Scott, Rice Institute, Houston, Texas, 1926, p. 15.

⁷ A. V. Hill, *Living Machinery*, Harcourt, Brace and Co., New York, 1927, p. 237.

⁸ Edward C. Schneider, *Interpretations of Physical Education*, Vol. I, A. S. Barnes & Co., New York, 1931, p. 57.

⁹ *Ibid.*, p. 78.

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work which an individual can carry is increased by physical training.¹⁰ The gas analysis of the exhaled air during work as a result of training shows that the trained man absorbs a greater proportion of the air he breathes.¹¹ The trained man can deliver more oxygen to the active muscles.¹² It was found that the trained men of the type of DeMar could deliver more blood from the heart, that the efficient working of the heart made necessary a lower heart rate, than with untrained men.¹³ Clark-Kennedy and Owen¹⁴ found the trained man increases his ability to pump air into and out of the lungs during periods of great need.

Other factors of adaptability can only be briefly referred to. Thus regular exercise increases the number of red blood corpuscles per unit volume of blood and for the organism as a whole. Nesor, on comparing stabled animals and the fully trained race horse found an average of 4,000,000 for the first and 12,000,000 red corpuscles for the latter in a cubic millimeter of blood. Exercise is, in a sense, the "pace maker" for the bone marrow which is the seat of the manufacture of the red corpuscles. This may be accomplished in two ways: first, through the fact that want of oxygen stimulates the marrow cells and that in physical effort the supply of oxygen is often not equal to the demand; and second, because strenuous exercise often causes a great destruction of corpuscles, which may cause a temporary anemia great enough to lead to want of oxygen.

Another fact of minor importance may be an increase in muscle hemoglobin. Thus in a caged adult dog the heart muscle contained 400 milligrams of hemoglobin per 100 grams of tissue, while there were 700 milligrams in an exercised dog.

Still another factor that operates within the muscle is this, that by training, new capillary paths are opened for the blood. These greatly increase the area of diffusion and favor the exchange of materials between the blood and muscle fibers.

Since the bicarbonate of the blood constitutes its alkaline reserve and therefore determines its capacity to buffer the lactic acid formed during exercise, it follows that the less there is of this reserve the sooner will fatigue result with a given exercise. It is of interest, therefore, to find that physical training actually increases the alkaline reserve. Full and Herxheimer showed that in 13 highly trained athletes the alkaline reserve averaged 72.12 volumes per cent; while in 18 normal, but untrained people the average was only 65.15 volumes per cent. Apparently training increases the alkaline reserve of the blood as much as 10.7 per cent. An increase in the buffering of the muscles has also been reported. These changes undoubtedly give greater endurance to the trained man.¹⁵

Activity is the stimulating source of nutrition. Nutrition must

¹⁰ *Ibid.*, p. 76. ¹¹ *Ibid.*, p. 80. ¹² *Ibid.*, p. 81. ¹³ *Ibid.*, p. 82. ¹⁴ *Ibid.*, p. 83.

¹⁵ Edward C. Schneider, *op. cit.*, pp. 68-69.

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be viewed in its biggest sense as more than merely digestion and elimination. The ability of cells to absorb food, to store energy, to take in oxygen, to give off carbon dioxide, the ability to achieve a coördination between the intake of oxygen and the outgoing of carbon dioxide, all are elements of the nutritive system which is stimulated by activity. This is summarized by Meredith:¹⁶

The experimental study of animals and man shows that the life and activity of cells depend on their supply of blood, carrying oxygen and food and removing waste. In providing for the needs of the widely distributed muscles, circulation is activated. Exercise thus provides incidentally for the needs of all other cells, and increases their functional power. In order to supply the muscles with oxygen, the blood must develop more red cells, and more hemoglobin. In order to supply the muscles with food, appetite increases, digestion improves and assimilation of food is better. In order to get rid of muscle waste, elimination from the kidneys and the lungs and the alimentary tract is more perfect. In order to give the muscles enough blood, internal parts of the body are relieved of an excess of blood that would otherwise amount to harmful congestion. In order to supply the muscles sufficiently rapidly with blood, the vasomotor system must be lively in its responses, and this insures quick adaptations to other needs of re-distribution of the blood, as, for example, in temperature regulation. In supplying the skeletal muscles with necessary stimuli, the whole nervous system is increased in tone and power.

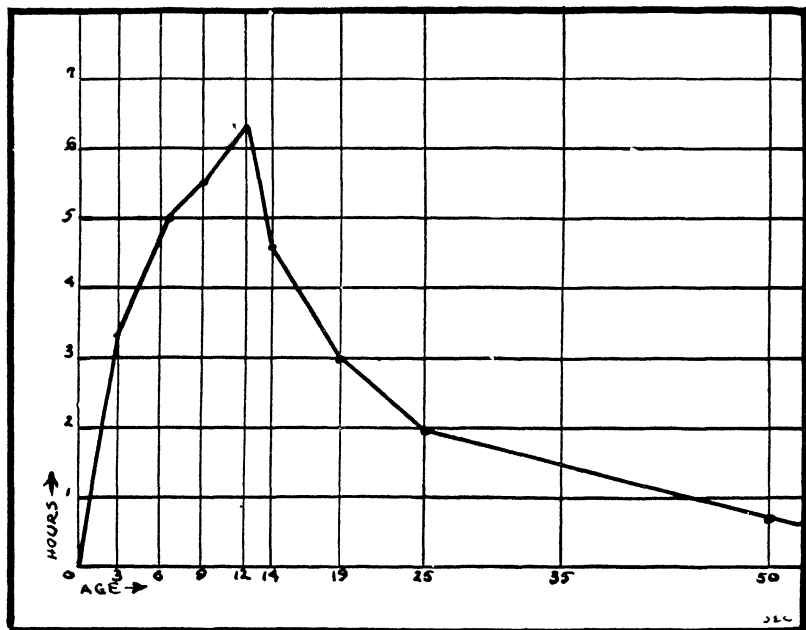
Thus the nutritive system becomes the basis of physical vitality, organic stamina, the ability to sustain effort, to resist fatigue, and to regain weight after activity.

We are interested not only in this increase in the size of the structure but also in what happens in the cell during activity to give increased functional power. Our contention is that it is under activity that this cell actually increases not only in size, but in power to function, and that during inactivity, the reverse process takes place. Our standpoint is confirmed here by Jordan and Ferguson,¹⁷ "During activity a muscle cell increases in size by the longitudinal splitting of the myofibrilla with the consequent increase in number of this myofibrilla. During inactivity, the muscle decreases in size by solution of myofibrilla present in each muscle cell. Therefore, a highly trained muscle has a maximum number of myo-fibrillia per muscle cell brought about by activity."

¹⁶ Florence Lyndon Meredith, *Hygiene*, P. Blakiston's Son and Co., Philadelphia. 1926, p. 358.

¹⁷ H. L. Jordan and A. C. Ferguson, *Text Book of Histology*, D. Appleton and Co., New York, 1916, p. 358.

b. Freeing the Body of Devitalizing Drains. The second element (diagram, page 106) in connection with health is the removal of devitalizing drains. These drains may be in the form of diseased tonsils, adenoids, etc. Any drain acts in the way of a handicap. It disturbs some of the delicate balances of the body and as such either cuts down total body efficiency or throws off the entire body balance. It is interesting to note that President Hoover's Conference on Child Welfare and Protection points out



Estimated, "Big Muscle," Activity Needs at Various Ages

that the rural child suffers more from these defects than the city child.

This phase of health has to do with the removal of the defects. This is a medical task. The physical educator can assist by bringing to the child's attention the necessity for the removal of the handicap. He can follow-up after the child has visited the physician. The place of the physical educator in this instance comes on both sides of the physician.

On one side recognizing the handicap in the child and pointing him to the specialist, and on the other, when the child comes back

from the specialist, in the building of power. The mere *removal of the handicap does not build power*. It merely allows one to start at par. Power building must come through activity.

c. Freeing the Body of Handicapping Strains. Strains such as worry, fear and pain, are as definite handicaps to the child as are the drains of bad tonsils, adenoids and teeth. Strains of all kinds tend to slow up the body functions in the whole nutritive chain. Cannon¹⁸ has shown that the digestive fluids which have to do with the breaking down of food materials are cut down and in some places stopped during strain. Strain is many times caused by worry about health. It is possible to become health-minded to a fault.

Jennings points out that one of the great causes for malnutrition is strain. If the child is under heavy emotional strain the body cannot give its attention to digestion. He says,¹⁹

Here our principle of "attention" comes into operation in most marked degree. Appetite is precisely this "attention" of the organism to food; it is the condition in which the energies of the body are prepared to engage effectively in the complex chemical operations of digesting and assimilating the food. If the body will not attend to the food taken—and this is what happens when food is taken without appetite—the chemical operations go wrong, and the food changes to poison. This "attention" of the body to food we call in its outward and sensible manifestation appetite, but it includes also the complex and coördinated "attention" of a host of internal organs, going through a most complicated set of chemical and physical operations to take care of the food. Now this complex process is one most delicately poised; most easily interfered with, by the direction of the bodily "attention" elsewhere. Strong emotions of all sorts, and particularly such painful ones as worry, fear, anger, at once stop the processes; the details of these matters have lately been thoroughly studied by physiologists; they are just as precise and definite as the fact that you can no longer see when the eyes are shut. Severe mental labor has the same effect; strain of any sort acts in the same way. Poor ventilation, and lack of free activity, are found to have most marked effects in decreasing this attentiveness of the body and its organs to food. All these things thus strike at the very foundations of development. Malnutrition is to be combated in the same way as the bacterial blights,—by all the measures required for bringing about free and full development of all the capabilities; that is, as we shall see, by relief from strain; by happy play; by activity in the open, and the like; these things we are to deal with.

¹⁸ Walter B. Cannon, *Bodily Changes in Pain, Hunger, Fear and Rage*, D. Appleton and Co., New York, 1929.

¹⁹ Herbert S. Jennings, *Suggestions of Modern Science Concerning Education*, The Macmillan Co., New York, 1925, pp. 32-34.

It should be noted that these handicaps are more elusive than the drains of adenoids and tonsils in that they cannot be removed directly—they must be removed by the process of substitution. Activities must be substituted in their places. One by-product of activity which indicates the absence of strains is represented by the word *joy*. Jennings again calls attention to the value of *joy*. He says,²⁰ "One of the most striking things in the development of modern physiology is its gradual recognition of the great value of those pleasurable emotional states, which may be classified together under the abused word *joy*, and of the harmfulness of the opposite emotional states—*anxiety*, *sorrow*, *worry*, *fear*, *pain* and the like. The condition of happiness, of *joy*, is that in which development is unhindered and flourishing; in which the functions are proceeding harmoniously; while *worry*, *fear*, *unhappiness*, are the marks of the reverse condition of affairs; something is blocked and is going wrong."

Hence, we realize the tremendous importance in the lives of children of joy and happiness as symptoms. We immediately see the relationship of the organic level to the other levels noted on page 6. Physical education, because it emphasizes the big muscle play activities of children, gives tremendous satisfaction and hence, joy and happiness. It is an antidote to strain. Particular dangers will be pointed out on pages 286-313, as physical activities themselves may and sometimes do become a strain. Properly organized they become the antidote.

The physical educator more than any other teacher in the entire educational régime has an opportunity to place the child in the condition where growth and development may proceed harmoniously. This basic principle should be a guide in program selection (page 272).

d. Teaching Health Habits. The fourth element of health is the maintenance of power through health habits. The finest built physique, freed from the devitalizing strains and drains may be quickly broken down by bad health habits. How are children or adults, for that matter, going to be induced to follow the simple health rules which are recognized by every one as important? Most of our health rules are like our traffic rules—they are made for the other person to observe. The person who makes them has often little thought of observing them himself. The teachers who give health rules to children in many cases have little thought of using them themselves.

²⁰ *Ibid.*, pp. 34-35.

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From the standpoint of the child the following of health rules means sacrifices. Abstaining from a piece of candy between meals is a sacrifice; likewise, going to bed early is a sacrifice. Even though every act of the child is supervised by parents and teacher, the time will come when this supervision will be at an end and the child will have to be on his own.

The simple conclusion is that the child will follow health rules if he wants to, and he will want to only if he realizes that they have something to give him namely, that they will be an asset in doing the things he wants to do. This for years has been the principle of the training table in colleges. Imagine a college man presenting himself to the training squad and saying, "I want to play football." The coach looks him over and says, "All right, bring your suitcase down. From now on until the end of the season I am going to tell you how many hours you sleep, when to go to bed, when to get up, what to eat for breakfast, lunch and dinner, how many rides to take in automobiles, how many dances to attend, and if you violate one of these rules, out you go," and this young man with the exalted ego salutes and says, "Yes, Sir." Why does he do it? Why does he not talk back to the coach as he does to the traffic officer? Because the coach has control of something that young man wants to do. He submerges his personality and the things that he generally wants to do and that the other boys are doing because he wants more intensely to do something else.

You will say immediately that this holds for an athletic team, but not generally.²¹ Another example can be cited. Two little girls, Dorothy and Elizabeth, are twins about four years old. With a great deal of pride Elizabeth recently said, "I can whistle, but Dorothy can't." This closed the incident so far as the children were concerned, but the mother went on with the story. Elizabeth had been trying to whistle for a number of months and had finally attained her want. Dorothy, from the time she was a very little girl, had sucked her thumb. Every known device for the breaking of this habit had been tried and yet after Dorothy had gone to sleep, a little hand would come from under the cover and her thumb would go into her mouth. There was undoubtedly a satisfaction there. At the time that Elizabeth first whistled Dorothy said, "I want to whistle, too," and the mother told her that one of the reasons she could not whistle was because she had been sucking

²¹ Observation.

her thumb while Elizabeth had been learning to whistle, and she said, "I will not suck my thumb any more." A new want had superseded the old want. The want to whistle had eclipsed the want to suck the thumb which never went into the mouth again. This *want* even controlled the subconscious self, because the thumb did not go into the mouth after the child had gone to sleep. She actually came to the place where she wanted to give up the habit which she held so precious, but she gave it up for something better.

This principle must eventually be the principle for the establishing of health habits. The child must see the relationship between the thing that he has to do in the way of a health habit and the thing he wants to do.

Now what do children want to do? A canvass of thousands of children show that they want the satisfaction which comes from approval of the group, just as do adults, and at this age approval is given largely because of physical prowess. The child wants to run faster, jump higher, climb quicker, hit farther.²² He wants to be *Babe Ruth* and *Charlie Paddock*. If you can help him to be the thing he wants to be he will follow any rules you set down, and the more severe they are the greater will be his joy in following.

Physical education then has a definite contribution to make in the establishment of wholesome health habits because it is in the field of physical education that children want to achieve, and in that field health habits can be established.

Standards must be built around *want*. Children want to participate in playground activities. Therefore such activities are important in building standards in the lives of children. As such health must be a by-product of wholesome living. The word *health* should not be mentioned to children as there is no interest in health or such but only in what health may do to help an individual to fulfill *wants*.

Health should be viewed as an objective from the standpoint of the leader but a by-product from the standpoint of the child.

2. *Summary of Organic Development.* The very close relationship between physical education, health, and organic development cannot but be noted. The physical educator is interested in all of the elements (page 106) in relation to health. He is par-

²² A survey of what boys want to do in their spare time in the New York City area indicates that over half of them specifically choose games and sports. *New York Times*, March 3, 1931.

tially responsible for the detection of devitalizing drains and largely responsible for the building of power after the drains have been removed by the specialist. The physical educator with his interest in big-muscle play activities which are the heritage of the race has great responsibility in connection with bringing joy and happiness into the lives of children, as a substitute for strains. The physical educator motivates health habits, because he superimposes a higher want: namely, to achieve, *to be of some impor-*



Courtesy of Dr. Gertrude Moulton.

Beauty in Rhythm

tance in his own group, in connection with physical prowess, over the wants which involve violation of health rules. The physical educator can motivate health behavior more than any other educational leader.

Finally, the physical educator is almost wholly responsible for the building of organic power through big-muscle activity. The physical educator, with his work properly organized, can teach during the school day activities which will dominate three to five hours of the child's out-of-school time. This motivation can affect the child on school days and non-school days because it capitalizes age old biological drives.

Hence, physical education largely lays the basis for this four level development.

B. Neuro-Muscular Development. The second level of development (figure, page 6) refers to the aspect of development which gives cortical control of the motor mechanisms of behavior in adjusting the organisms to the environment.^{23, 24} It is particularly to be noted that this development includes everything which has been considered on the organic level but, in addition has a growing edge of its own.

On this level we think in terms of beauty, skill, poise and rhythm of action. This is designated as an emergent which carries the implication that the sum total on this level is more than merely an addition of parts. A new thing has emerged. Water is not a mere addition of atoms of hydrogen and oxygen. It is a new thing. Likewise, common table salt, sodium chloride, is not a mere addition of atoms of sodium and chlorine. It is a new substance. So on this neuro-muscular level the sum total of parts cannot explain the total. Something new is present. We think of there being an added amount of relative and conditional freedom on this level. This level *strikes down* and utilizes all the lower level, the organic, but is of itself something new.

Coördinations must be learned, as especially pointed out by Dashiell: "In the case of man the proofs for inborn sets of coördinations are slender in the extreme; and an unbiased weighing of the evidence leads to a far greater emphasis upon environment, opportunity, and learning, than upon native factors."²⁵

These learned coördinations begin with the infant's rambling movements and extend to the skilled movements of the athlete, juggler, or piano player. The tremendous importance of the neuro-muscular actions is referred to by Nunn,²⁶ "The 'sensorimotor reactions' contain the promise and potency of all human achievements."

Hill also points out the necessity of long years of preparation before skill can be acquired. He says, "Skill depends upon the coöperation of muscles, nerves and nervous system but its end result is to do things with as little waste of energy as possible."²⁷

²³ Clark W. Hetherington, *op. cit.*, p. 32.

²⁴ C. Judson Herrick, *Neurological Foundations of Animal Behavior*, Henry Holt and Co., New York, 1924, Chapter VIII.

²⁵ John Frederick Dashiell, *Fundamentals of Objective Psychology*, Houghton Mifflin Co., New York, 1928, p. 224.

²⁶ Percy T. Nunn, *Education, Its Data and First Principles*, Edward Arnold and Co., London, 1920, p. 164.

²⁷ A. V. Hill, *op. cit.*, p. 207.

In this relationship even the²⁸ simplest movements of reaching for an object or leaning slightly one way or the other, bring into play practically every muscle of the body. If these coördinations are to be learned,²⁹ one of the essential elements is that an individual must have an early start and an enormous amount of practice.

These coördinations become automatic.³⁰ We do not remember how we do them and probably could not describe them. We automatically take our position on horseback as we turn right or left.

The elimination³¹ of useless and ineffective movements and the retention of essential movements in this coördination take place by preparation. It is clear to see that this is the relationship between the³² muscular and nervous system and that this relationship is very close.

The particular point of issue is that it takes years to perfect coördination, that coördination are learned habits, and that it is only by forcing the habitual ways of doing these down into the lower centers that we are actually freed to do other things. If it were not for these learned activities, we should spend the greater part of our lives doing minute details such as dressing, fastening clothes, and buttoning shoes.

Coördination thus becomes an affair of the whole organism. There is at the bottom a relationship of³³ mind and body.

The child must be given long years of opportunity for the participation in these coördinations if a skilled coördinated body is to be the product. The particular interest to this study is that the long period of infancy is the time when these coördinations are built up. It is in the big muscle activities—creeping, walking, climbing, running—that control over the body is acquired.

Incidentally it might be noted that skills on this level lay the foundation of many of our leisure time activities. We do as recreation that which we do well and from which we get satisfaction. In the development of skills we build patterns of symbols which will be used on the next level in interpretive thinking.

²⁸ John B. Watson, *Behaviorism*, W. W. Norton and Co., Inc., New York, 1927, p. 164.

²⁹ Edward Thorndyke, *Adult Learning*, The Macmillan Co., New York, 1928, p. 182.

³⁰ A. V. Hill, *op. cit.*, p. 185.

³¹ F. Q. Bainbridge, *The Physiology of Muscular Exercise*, Longmans, Green and Co., New York, 1923, p. 17.

³² John Mason Tyler, *op. cit.*, p. 69.

³³ W. P. Welfton, *op. cit.*, p. 75.

C. Interpretive-Cortical Development. In interpretive development we have the third level (figure, page 6). It will again be noted that interpretive development includes all of the organic and neuro-muscular levels but adds, further, a growing edge of its own. John Locke touched upon this when he said,³⁴ "Nothing is in the mind which was not first in the senses."

By interpretive development is meant the accumulation of meanings through activity.^{35, 36} These meanings are made possible through the development of the cortex, the seat of associated memory. On this level we see beauty in keen analysis, diagnosis and intellectual honesty. It is the beauty in connection with the way in which an expert through experiences sizes up a situation. It may be the keen analysis of a roadside mechanic putting his finger on the mechanical difficulty of a car. It may be the keen diagnosis of a skilled physician who takes in the situation at a glance.

This level also represents an emergent. There is a higher degree of relative and conditioned freedom here. This is not merely an addition of parts. It is something new. No attempt will be made to discuss the levels of interpretive power. We are here interested only in the contributions which activities may give on these various levels. It is through the sense impressions which come to us while participating in activity that it is possible for an individual to develop his interpretive power to the limit of his hereditary possibilities.

Symbols, written or spoken, have no meaning apart from experience. The symbol of a spoon, oral or written, is an accumulation of sense impressions from the eye in seeing the spoon, the ear in hearing the spoon struck on the table, the taste organs in connection with the spoon being put in the mouth, and the feeling mechanisms in connection with manipulating the spoon.

Modern education has been prone to deal merely in symbols and thus burden the child with the memory of symbols which have no meaning. This was to a certain extent the criticisms against educational procedures by Locke, Rousseau, and Pestalozzi.³⁷ This complaint against educational procedure is also the burden of the modern educational leaders. *Meanings must come through activity.* From a biological standpoint big muscle play activities of the

³⁴ Eugen Matthias, *The Deeper Meaning of Physical Education*, A. S. Barnes and Co., New York, 1929, p. 41.

³⁵ *Ibid.*, pp. 34-41.

³⁶ Clark W. Hetherington, *op. cit.*, p. 30.

³⁷ Eugen Matthias, *op. cit.*, p. 41.

early years of life become the primary means of developing meanings, and hence of *training the mind*. We cannot think combinations of symbols unless their meanings are clear. Herrick says:³⁸

Ordinary growth is an act of creation. Learning is a creative process of the same sort. Every child builds up anew his own store of knowledge just as he does his body. Invention creates new arrangements of materials in machines, new combinations of form and color in sculpture and painting, new ideas in imaginative literature, which never before were experienced. Evolution is the preëminent natural creative process. There is no evidence that when life began on our planet or when our cosmos began, all subsequent history was actually present enwrapped in that primordial beginning. On the contrary, the evidence is that all growth and all evolution are genuinely creative events. At every step new patterns are fabricated by working over old materials.

Physical education activities have contributed to interpretive education even more than arithmetic, algebra, Latin, history, and geography.

It is not at all contended that the organism is solely subjected to actions of external force alone. Dashiell puts this well, "Human nature is not a football. It is not immediately and solely subject to the actions of external forces alone. Rather, these exteroceptive stimuli serve mainly to release, to touch off, the energies stored and systematized within that extremely complex balanced mass we call a living organism."³⁹

It is then contended that by means of activities internal possibilities are guided or even released. This, of course, takes into recognition the fact of native capacity, recognizing that all interpretive development will depend in its upper levels upon native capacity. The contention, however, is that through vigorous activities or invigorating experiences the interpretive development can be developed well up to the limit of capacity.

Interpretive power, then, becomes the ability to use our past experience and to interpret present conditions. Child stresses this point.

Behavior generally, though not always, leads to results which are useful to the organism in one way or another and enable it to exist, to maintain itself, to propagate its kind and particularly in the higher, more strictly psychic forms of behavior to profit by past experiences and to act more or

³⁸ C. Judson Herrick, *Fatalism or Freedom*, W. W. Norton and Co., New York, 1926, pp. 20-21.

³⁹ John Frederick Dashiell, *op. cit.*, p. 232.

less intelligently when brought into relations to new collocations of external factors.⁴⁰

Dewey quotes Rousseau in support of this:

Quoting Rousseau. . . . "To learn to think we must accordingly exercise our limbs, our senses, and our bodily organs, for these are the tools of our intellect." . . . The current idea (and one that prevails too much even in our own time) was that the senses were a sort of gateway and avenue through which impressions traveled and then built up knowledge pictures of the world. Rousseau saw that they are a part of the apparatus of action by which we adjust ourselves to our environment, and that instead of being passive receptacles they are connected with motor activities.⁴¹

Henshaw contends that these activities, particularly the activities of the hand, have been the stimulating force in the development of the brain.⁴²

Being confronted with activities in what Thorndike would call the *situation* and what the animal does in the light of it, the *response*. That is, the animal after making a *response* is not really the same animal. Whereas the animal was X before the response, he becomes X' after the response, and X" after the following response, etc. Putting the situation again in the terms of John Dewey⁴³ we have the complete act of thought.

We find that with the development of special senses there takes place an inexplicable transmutation from physicochemical effects into ideas about these effects. For example, in vision, as centered in the eye, light (electro-magnetic waves) strikes the retina, producing chemical and physical effects which evolve electric currents. The latter pass into the brain over neural paths to reach the visual center. Here further physicochemical and electrical effects are produced and at the end of these reactions a metamorphosis takes place, namely: ideas appear. This illustrates the now famous principle of indeterminacy.⁴⁴ Thus all potentialities of protoplasm, chemical and physical—flora, fauna, etc.—are revealed in phylogeny and history.

Function parallels structure. The special senses of man are different from those of lower forms. A study of comparative

⁴⁰ Charles M. Child, *Physiological Foundations of Behavior*, Henry Holt and Co., New York, 1924, p. 227.

⁴¹ John Dewey, *Schools of Tomorrow*, E. P. Dutton and Co., New York, 1915, p. 11.

⁴² A. W. Henshaw, "The Hand and the Brain," *Century Magazine*, July, 1928.

⁴³ John Dewey, *How We Think*, D. C. Heath and Co., Boston, 1910, Chap. VI.

⁴⁴ Arthur Stanley Eddington, *The Nature of the Physical World*, The Gifford Lectures, The Macmillan Co., New York, 1927.

anatomy will demonstrate to the casual observer that the quality of special senses has evolved side by side with marked structural changes in the brain prototype. Phylogeny has built up a mechanism to insure for each species its particular sensuous characteristics. In the life of each individual this development is repeated—ontogeny recapitulates phylogeny. The mark of Tilney and Gesell bears this point forcibly where they have shown that in kittens and humans alike function parallels directly the sequence of structural development.

The above facts are demonstrable by the microscope, particularly in the study of pathological brains where destruction of certain areas is associated with a history of definite functional syndromes. This had undoubtedly been the basis of our *learn by doing* philosophy of education. Kilpatrick calls attention to this when he says, "What we would learn we must practice,"⁴⁵ and later, "We learn only what succeeds, and what Jennings referred to when he said, "There can be no development of these powers without their exercise"⁴⁶—and Fiske, "One of the philosophical things that *have* been said, in discriminating man from the lower animals, is that he is the one creature who is never satisfied. It is well that he is so, that there is always something more for which he craves."⁴⁷ Colvin calls attention to the same learning process, "The learning process may briefly be described in its most general terms as the modification of the reactions of an organism through experience."⁴⁸ Mumford also stresses this, "Unless innate instincts find free play, the natural forces within the body fail to find their fullest exercise."⁴⁹

It is contended that interpretive power has been developed under necessity—that function has paralleled structure.

If this is true then it becomes one of the essential elements in an educative program to provide children with stimulating activities which involve problems or situations.

⁴⁵ William Kilpatrick, *Education for a Changing Civilization*, The Macmillan Co., New York, 1926, p. 97.

⁴⁶ H. S. Jennings, *op. cit.*, p. 39.

⁴⁷ John Fiske, *The Meaning of Infancy*, Houghton Mifflin Co., New York, 1911, p. 43.

⁴⁸ Sheldon Colvin, *The Learning Process*, The Macmillan Co., New York, 1921, p. 1.

⁴⁹ Alfred A. Mumford, *Healthy Growth*, Oxford Medical Publication, London, 1927, p. 52.

This is well summarized by Dashiell:⁵⁰

One thinks, characteristically, when he meets an obstacle (it is a response aroused in situations of difficulty). Then it is that he will "sit up and take notice."

Based upon this it becomes essential that children be given ample opportunity for vigorous problem-solving activities. One of the places where children have opportunity for interest driven activities is on the playground. We think in terms of our experience. We cannot think unless we have found meanings through activity.

Interpretive-cortical development has tremendous significance in connection with the problem of leisure time. We become challenged as a situation *takes on meaning* but only to the extent that we are *within reach of success*. A gravel bank to most people is just a gravel bank but to a skilled observer in reading symbols, a gravel bank becomes a challenge as a place to study the comparatively recent happenings of the world in geological terms.

A piece of pottery or an oriental rug challenges us as we know the meanings of the symbols in connection with their construction and use. The rendering of a piece of music or a painting take on meanings as the symbols which make up these productions arouse meanings in the individual. Moving pictures, radios, telephones, are mere carriers of symbols. Meanings are brought only as the individual recognizes the symbols transmitted in terms of experience.

If there is to be a wise use of leisure it must be based upon wide participation in activities largely during the years of childhood. Leisure time needs should be a guide to curricular construction in our public schools, *which must be a doing process*. It is by means of an activity program that neural connections are made. Organizing courses of study in terms of reading, writing, arithmetic, drawing, history, Latin, algebra, etc., instead of organizing all education in terms of total activities, is certainly the mistake of the modern schools.

The leisure time activities in the field of physical education have particular significance because of the fact that they serve a dual purpose—a *leisure time activity* and a *body power maintaining activity*. The casual observer will realize that an adult will participate in the activities in which he became skilled in childhood. He became skilled in childhood on this interpretive level

⁵⁰ John Frederick Dashiell, *op. cit.*, p. 509.

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where he learned the meaning of symbols through activity, utilizing both the neuro-muscular and organic levels.

Can modern man be trusted with leisure? This question has by no means been answered. There are to-day many indications that man cannot be trusted with leisure and yet the community slogan seems to be *more leisure*. Many men to-day are dulled or become anti-social, with excessive leisure. They have much time with nothing to do. Activity is man's normal state. Rest is natural only as a recuperative measure for more activity. Time drags with nothing to do. Time flees during pleasant activity. Every indication at the present time is that with excessive leisure man will turn out to be a spectator, a listener, a watcher of somebody else doing things, merely because it is the easiest thing. *Spectatoritis* has become almost synonymous with Americanism. We are in the gladiatorial stage of Rome with few participants and many seats for the spectators. Man's survival depends upon his participating in vigorous activities.

We think only as we face new problems. Too much waking leisure and sleeping leisure dulls the mind. Our cities have produced thousands of robots who are mere creatures of the entertainment elements of their environment.

Remove from the animal all elements of competition in connection with the gathering of food and sluggishness will follow quickly. Man is no exception. Man is naturally lazy and will degenerate into a button-pusher and lever-puller if given the slightest opportunity, and will even work far into the night to devise means to relieve himself of physical exertion. It is in achievement that joy and satisfaction are realized. Sports or games which now constitute the major portion of physical education are one of the means of getting out of life the thrill of accomplishment. Whether the game be golf, baseball, or run-sheep-run, it may be defined as a situation in which the chances of success and failure are so evenly balanced that success when it comes gives great satisfaction. It must be such that by special effort upon the part of the individual or group of individuals the chances of success may be made greater—the chances of failure less. This is why a real game of golf will live and Tom-Thumb golf will die.

The development of a generation which will be able to wisely use leisure is faced with many handicaps.

The present manner in which the public school is conducted is in itself a handicap. With the large number of children attending schools, the tendency is to formalize all instruction—crowding out

the living, driving, and vitalizing elements. To this end great emphasis has been placed upon tool subjects: reading, writing, arithmetic, and other fundamentals which are given along with them. So much emphasis has been placed upon learning symbols that people have looked upon them as education. As a matter of fact they are not education. They simply represent the tools by which the children may educate themselves.

In education it is necessary for children to respond. There is no education except as the child enters into activity. The real elements of education have to do with music, manual training, science and the game phases of activity. The tendency of the school is to crowd these out and so crowd out all of the possibilities for the development of interest which will eventually develop into leisure time habits: Rigid subject matter requirements are many times enforced by the state. Teachers are thus graded, children are thus promoted, hence, they become the great business of the school.

Schools have a tendency to take the next fatal step namely, that of requiring homework for small children. Not content with depriving the child of five hours a day of activity possibilities and an interest in activities, the school takes over one or two hours of his meager afternoon time which is left to him. This type of work puts stress upon the small muscles, especially the sense organs, and kills all the spontaneity and freshness.

The second great handicap has to do with the growth of industrial civilization. In the past one's joy of accomplishment came as a by-product of his work: the wagon-maker completed his task and was proud of it—the weaver completed his rug. To-day this work is done on a piece basis whereby no one takes pride in the final product. Thus in the automobile industry the contribution of any one individual is very small. With the elimination of the possibilities of joy from work, the individual must turn to his leisure time for joy. It is evident on all sides that only a few exceptional people have the ability and the initiative to find this recreational activity which will really recreate.

The third handicap is in connection with our growth of cities. The very process of urban growth means the cutting down of leisure time opportunities. The very situation plays into the hands of great spectacles where large opportunities can be concentrated into small areas. In an urban community if one is to find recreational opportunities he must travel a great distance. He must seek it out and the average man lacks this initiative.

The sum total of all this is that our young people instead of getting a thrill from legitimate types of activities, turn to what the community has called *delinquency*. The rules and regulations of modern society always form a challenge. Private property has a challenge. The rights of other individuals represent challenges, and in the absence of the right type of challenges, these will be accepted and the result is crime.

If there is to be training for leisure several elements are necessary. Trained leadership must organize activities of a high social order which contain a challenge: music, art, nature study, etc. In order that children may be challenged they must have some possibility of success and hence must develop some skills in these various lines. This again becomes the task of leadership. These are the elements which the public has a right to expect from the money which is put into public education.

The public has another responsibility and that is providing ample opportunities during adulthood for the proper expression of legitimate leisure time activities. The development of modern civilization has provided the time. Modern urban communities must provide the space and the leadership. The task is not impossible.

Attempts for this solution are being made by many European countries. The problem is being faced in Russia. America has the wealth to solve the leisure time problem if leadership can be developed.

The solution of the leisure time problem depends on educational procedures in childhood. More and more the public school must face this situation. We have two alternatives—*education for freedom or for dictatorship*.

The gaining of interpretive-cortical development through participation in activities will lay the foundation for the *wholesome use of leisure time* and for life work. In this process the values of physical education activities loom large.

D. Emotional-Impulsive Development. We are here discussing the development upon the fourth level (figure, page 6). This level includes everything on the organic, neuro-muscular and interpretive-cortical planes. It, however, adds a growing edge of its own. It is not a mere accumulation of units. It becomes an *emergent* in that it is a new thing. On this level we see beauty in its highest form, in the sparkle, radiance and zest of human kind, vying for the privilege to serve the group. It is the zest that Collier refers to when he describes how the members of certain

Indian Pueblos vie for the opportunity to serve the group.⁵¹ It is the zest that Collier again refers to when he writes of "public works" as pointing the way to a solution of the leisure time problem. It is the beauty that comes from body form, from skill, from rhythm of action, from keen analysis, and, finally, the beauty that is the very essence of love—no sacrifice is a sacrifice but a joy—for one we love.

By impulsive-emotional development is meant all of the impulses in behavior—all of the hungers, interests, desires, ideals, attitudes that impel one to act.⁵²

The contention here is that since impulses can be built, they can be controlled.⁵³ "Attitudes can be developed in the same way as habits. They are formed when the individual gives attention to, or engages in, an activity."⁵⁴

Robinson points out that we have little logical basis for our beliefs. "The 'real' reason for our beliefs are concealed from ourselves as well as from others. As we grow up we simply adopt the ideas presented to us in regard to matters as religion, country and state. We unconsciously absorb them from our environment."⁵⁵

Education must take the primary equipment and organize it into proper ways of activity. Dewey points out, "Each individual has a certain primary equipment of impulse, of tendency forward, of innate urgency to do. The problem of education is that of discovering what this native fund of power is and then utilizing it in such a way as to organize it into definite concerned modes of action . . . habits."⁵⁶

Two types of values are recognized in activities. Both are of great importance.

1. *Values Inherent in Activities.* In connection with this let us analyze a big muscle activity such as the doing of a hand stand or the making of a boat which can be sailed successfully. Success in either one of these activities leaves the child with a heightened ego, a feeling of confidence and success. Upon completing either

⁵¹ John Collier, *Interpretations of Physical Education*, Vol. I, A. S. Barnes & Co., New York, 1931, p. 187.

⁵² Clark W. Hetherington, *op. cit.*, p. 26.

⁵³ Eugen Matthias, *op. cit.*, pp. 17-21.

⁵⁴ C. E. Benson, J. E. Lough, C. E. Skinner, and Paul V. West, *Psychology for Teachers*, Ginn and Co., New York, 1926, p. 190.

⁵⁵ J. H. Robinson, *The Mind in Making*, Harper and Brothers, New York, 1921, p. 42.

⁵⁶ John Dewey, *Moral Principles in Education*, Riverside Press, Cambridge, 1909, p. 50.

one of these activities there are certain physical characteristics which will go with the success—the body becomes erect, head is back, face is flushed, pupils are enlarged, the child looks at you eye to eye and says, “I did a hand stand” or “The boat sailed.” This gives the child confidence and makes him optimistic in his outlook upon the world. This gives him power to attack harder tasks with confidence of winning. Continued success in the face of the failure of others may give him a superiority complex and continued failure in the face of the success of others may give him an inferiority complex. These are equally bad.

Children’s activities should be planned so that Bill will be better than John in this, and John better than Bill in that. With a wide range of activity choices, some activities can be found in which every one can get the thrill of success. For retarded children this may mean placing them in younger groups or even devising activities that they can do by themselves.

Self-confidence must be developed. Burnham notes, “The function of the teacher is to provide opportunity for a suitable task and the conditions that make success for the individual possible.”⁵⁷

There is of course danger of overassertiveness. Burnham notes both extremes, “A definite success is apt to do much toward removing the sense of inferiority,”⁵⁸ and later, “A failure, under suitable conditions, is significant.”⁵⁹ Mumford supports this, “The essential thing is that no sense of failure or all round deficiency should remain, otherwise the ground work will be hid for habits of shirking, lack of openness, and even at times of deceit.”⁶⁰

It is therefore essential that children be given a wide range of activities, and that they be so selected that success is within the range of possibility. With proper classification of activities and proper classification of children a degree of success should be possible to every one. It is upon the basis of earned success that a great majority of the desirable social characteristics must be built.

2. *Elements Which Exist in the Social Situation.* Wherever activities are carried on they are usually done in groups and this brings out the social situation immediately. It means an adjust-

⁵⁷ William H. Burnham, *The Normal Mind*, D. Appleton and Co., New York, 1924, p. 228.

⁵⁸ *Ibid.*, p. 484.

⁵⁹ *Ibid.*, p. 484.

⁶⁰ Alfred A. Mumford, *op. cit.*, p. 58.

ment of the "I" to the "We."⁶¹ It means a constant interrelationship of the individual and the group. In some activities there is a great amount of interrelationship and in others there is a very small amount. There is only a limited amount in connection with manual training or a lesson in history or in spelling, but there is a tremendous amount in a game of run-sheep-run, hop skotch, volley ball, or football. The mere presence of these interrelationships, however, by no means infers that proper responses will be made and proper impulses developed by the individuals.

Wherever there is a social situation of this type there are positive possibilities but you cannot have positive possibilities without also having negative possibilities. One cannot fall unless he gets off the ground, and the higher one climbs the farther one may fall. Therefore, to claim that good impulses naturally come out of athletics or group games is a false assumption; it may be just as natural for unwholesome attitudes to emerge. The possibilities, however, do exist and the hope that these possibilities may result in the formation of socially desirable attitudes depends upon leadership. By leadership is meant not only the leadership of an adult individual, but the leadership of the group or the group consciousness, which, of course, will be largely influenced by the leader.

A pitcher and a baseball team are twin born, just as are "self and society" as viewed by the sociologist. You cannot have a pitcher without a team or a team without a pitcher. The team wins or loses together. Six of the team cannot win and three lose. The objectives of the game are agreed to by all. The rules of the game are accepted. Sacrifices by the individual for the group are taken as a matter of course. Individual differences have to be overlooked if success is to come to the group, and sooner or later the team must realize that there can be no team unless there are opponents; therefore, an opposing team is necessary. In this relationship with the other team certain standards of conduct may be set up, just as we have set up rules pertaining to the game. These attitudes toward each other; giving to the group, sacrificing, become a matter of course with good leadership; and with bad leadership the breaking of rules, constant bickering and stoning the other team become a matter of course.

With modern invention and modern transportation, the world is one. Some one has said, "If we are not economically one we

⁶¹ J. H. Dennison, *The Enlargement of Personality*, Charles Scribner's Sons, New York, 1930.

are at least epidemically one," and this was well supported by the influenza epidemic. If civilization is to go forward, individuals must be willing to give to their group a little more than they get from it. In a big city this problem is "one to a million," let us say, or in America it is "one to 117 millions"; but the child cannot be thrown *quickly into coöperating* in such a big group. It is difficult to realize yourself as one in a million in a great city. One can easily say, What I do does not make any difference; I am only one; not realizing that it is the accumulation of ones that makes the group. Preparation for this coöperation starts in the little group, what the sociologist calls the face to face group, the family, the play group, the school group, the Sunday school group, the club, the gang. The individual must look upon his group as Kipling looks upon the pack, "The strength of the pack is the wolf, and the strength of the wolf is the pack." In this there is both getting and giving. If every individual in the pack insists upon getting only and not giving, the pack is broken up.

It is in the play life of children, culminating probably in the athletic contests of our high school boys, that the most dynamic impulsive situations of life occur. It is in physical education activities that we have possibilities for the training of impulses, a general training which must lay a foundation for sportsmanship, team work, and fair play. Impulses can be built, are being built every day. The group is building attitudes towards politics, religion, the Japanese, the Mexicans, the group in which the child lives. The group is conditioning each member. This is very well set forth in connection with the new Gestalt psychology as interpreted by Koffka and Ogden.⁶² It is also touched upon in the writings of Allport,⁶³ Burnham,⁶⁴ and others.

Every situation of life colors the stream of life. The joy that may come from doing a good turn for the child group may develop another Walter Reed. Life is not a series of isolated incidents; it is a stream. Every act in which we participate builds ways of acting or habits or, as the psychologist would say, sets our adaptability. The long period of infancy has its place in human life in doing just this thing. If there were no carry over, if life were not a stream, all training in childhood would be useless; because childhood situations can never be made exactly to fit adult

⁶² R. M. Ogden, *Psychology and Education*, Harcourt, Brace and Co., New York, 1926, p. 127.

⁶³ Floyd Henry Allport, *Social Psychology*, Houghton Mifflin Co., New York, 1924, p. 80.

⁶⁴ William H. Burnham, *op. cit.*, p. 144.

situations. Mumford states, "While the child is gaining control over his body, he is also gaining capacity to face this world in which he has found himself and in which he is now called upon to express himself."⁶⁵

It is the individual experience which is the determining factor. Then society must provide stimulating experience that will produce socially desirable changes in the lives of children. The physical education activities are, if in the hands of capable leaders, the most powerful instruments from the standpoint of emotional development.^{66, 67}

Anti-social conduct can no more be combated by punishing the offenders than air can be dipped out of a tumbler with a spoon. Air can be gotten out of the tumbler by filling it with water,—crime can be eradicated by giving men worthy challenges.

The lure of crime is that it flirts with danger. This is especially true in the early stage of gang life. Playing with danger has always been the zest of life. It is a fundamental quality of play. It is the essential basis of all games of childhood. In its earliest stages it is an essential element of crime. The city has developed a place where crime is play and also where play is crime.

Cities have become the hot-beds for breeding gangs which easily take on the technique of the racketeers. It starts at an early age. Boys, six and eight years of age, demand money for watching your car with the threat, "We'll puncture your tires, mister, if you don't pay us."

The Paris apache and Jesse James stir the imagination as do Buffalo Bill and Kit Carson. No one can take place of these men who flirted with danger and staked all against the gods. The race has been built upon this thrill and childhood must have an opportunity to experience it in socially approved ways. In large cities to-day these thrills are gotten from the roofs of our buildings where gangs of boys meet and where regular paths are laid out for groups to go from one building to another and up and down fire-escapes. Thrills are gotten in the railroad districts, along the wharves, stealing brass and lead from contracting jobs, rubbing chalk marks from automobiles which have been checked and collecting from the owners before the police arrive, gambling on which way the coins *comes up* in the turnstiles at the elevated and subways. There is even a thrill from playing in the street, in taking

⁶⁵ Alfred A. Mumford, *op. cit.*, p. 53.

⁶⁶ Charles M. Child, *op. cit.*

⁶⁷ *Recreation*, Vol. XXIV, No. 11, 315 Fourth Avenue, New York, February, 1931.

chances with the fast moving traffic. These are real thrills. The gang sets up its loyalty, has its own code, and sometimes sets itself against society—the beginning of racketeering.

The city life becomes an ideal atmosphere in which to develop delinquency.⁶⁸ High stakes are on every hand. There are stores of plenty, mystery, dark alleys and flickering lights. There are push-carts and street fires. It is the mystery in the situation—the danger with which one may flirt—the playing with these fear mechanisms that brings satisfaction in success and escape. The very success is uncertain—that is what gives it the zest. Children have been playing with these fear mechanisms for eons. It is the *it* of all games from run-sheep-run with its hiding in dark corners to football. For ages children have been trained in this daring by means of games. Theodore Roosevelt, in his tales of lion hunting in Africa, calls attention to the way in which the natives flirt with danger. The natives would surround a group of trees in which there was a lion, advance with their spears set, until finally they come shoulder to shoulder, still advancing toward the lion. The lion in desperation, which is the real *it* of modern games, strikes at the line of spears. Unless killed *it* becomes the killer—so the contest continues until the spear finally finds his heart.

Practically all of our children's games are built around playing with this *it*. To be *caught* in the early history of the race meant death. To be *caught* in children's games means some sacrifice—being put out of the game or being required to be *it* for the next game.

The modern city has deprived children of wholesome opportunities and in its place has substituted crime. We must offer a Buffalo Bill if we want to get rid of Jesse James. The substitute must be red blooded. It will take something more than Tom Thumb golf, ping-pong and community singing to combat the thrills that the gang members get from crime. Judge Lindsey, many years ago, stated that, "The thrill which the boy gets from stealing fruit at the corner grocery store is exactly the same thrill which he gets in trying to steal second base." In each case it is the thrill of being chased and the thrill is heightened by the possibilities of being caught.

Later in the history of the race thrills were gotten from wrestling success from a situation in which failure seemed probable. This success was always heightened when great social approval accompanied it. Hence the medicine man, the pottery-maker, the

⁶⁸ *Survey*, New York, February, March and April, 1930.

worker in silver or in leather, by perfecting their skills heightened their chances of success. This success was all the more satisfying because it could not be enjoyed by every one.

To-day it is still possible to set up these situations in which great satisfaction is achieved from accomplishment. These are primarily present in the game program of physical education. The situation may also be present in connection with experimentation in the field of science, with radio construction, and in all of the allied fields. Other stimulating situations may be set up in the field of music, sciences, chemistry and biology, especially as they are related to nature. For the young boy, however, they are not as stimulating as athletic games.

Physical education activities may become the *moral equivalent of crime* in the very sense which Professor James indicated a few years ago, and athletic games may become the moral equivalent of war.^{69, 70, 71} Give children an opportunity for legitimate thrills and crime loses its hold.

E. Standards. All of the development which has been discussed up to the present time has to do wholly with the changes in the organism. Little has been said in regard to whether these changes are socially desirable or not. Undesirable changes are made in exactly the same way so far as the biological structure is concerned. The element in the situation which becomes the determining factor is leadership.

If, then, changes in the organism are to be made so that the end results will be such that they will continually tend to place the race on higher and higher levels, standards must be set and leadership must be provided.

Robinson points out: "If the young are to do any differently, they must be brought up differently, given a different attitude toward institutions and ideals."⁷² If children are to attain these standards, the latter must be lived. This has been well pointed out by Miss Follett. "This means that we must live the group life. This is the solution of our problems, national and international. Employers and employed cannot be exhorted to feel sympathy one for the other, true sympathy will come only by creating a community or group of employers and employed."⁷³

⁶⁹ Walter B. Cannon, *op. cit.*

⁷⁰ Herbert S. Jennings, *op. cit.*

⁷¹ Eugen Matthias, *op. cit.*

⁷² J. H. Robinson, *The Mind in the Making*, Harper and Brothers, New York, 1921, p. 220.

⁷³ M. P. Follett, *The New State*, Longmans, Green and Co., New York, 1919, p. 47.

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Personality and those qualities which are associated with character, such as honesty, fairness, reliability, are, Allport says, "Socialized drives related to specific situations."⁷⁴

This development of standards, especially in its larger sense as it relates to personality, depends upon the quality of the individual's adaptation to social environment.

The contention is that it is through activities related to this study that standards can be most effectively built. Standards can be built around activities which individuals "want" to do. In lower organisms behavior can be built around the hunger drive, or in some instances, it can be built around the sex drive—but the central drive which can be used in connection with the education of children is the play drive—the *want* to participate in activities—unrest that comes from inactivity.

No attempt need be made to locate the source of this *want*. No attempt need be made to discover why some activities are more satisfying than other activities. All of the play theories which have attempted to explain play, have made no effort to locate the sources of this satisfaction. Specific standards, especially as they relate to this study, are health standards and citizenship standards.

1. *Health Standards.* Health standards must be built around the wants of the individual. The child must see that health habits are a means by which he may attain those things in life which he calls good. For further description of this turn to page 440.

2. *Character Standards.* In a similar manner to that outlined in the establishment of health standards, character standards can be established. If children want to participate in activities, leaders can set up standards of conduct as prerequisites to such participation.

The rather elaborate presentation of the analysis of activities has been undertaken in order to establish the educational value of activities. The essence of education is the participation in activities. Changes in the organism are made as a result of such participation. Not only are changes in the organism made, but there is a definite alteration of structure as a result of such participation. The integration of the nervous system depends upon participation in activities. Organic power depends upon participation. Impulsive development depends upon participation.

Whether or not this development is high on the scale of social values, or whether it is low, depends upon leadership. The providing of proper leadership then becomes a definite function of the

⁷⁴ F. H. Allport, *Social Psychology*, Houghton Mifflin Co., Boston, 1924, p. 125.

state. It is concluded, therefore, that the state through the public school has a right to organize opportunities for such activities as a "governmental function." It is further evident that the state has not only a right to organize such activities, but a definite responsibility, if standards of health, citizenship and character are to be maintained in a democracy which is attempting to function under urban conditions.

F. Physical Education Builds Normality. Normality may be attained only through living and life must be met. The way out is forward, not withdrawal. Fate guides the willing but deserts the laggard. Physical education activities make their contribution to the positive side of health and mental hygiene by creating the background for wholesome growth and development.

The physician and the psychiatrist are the removers of handicaps. Education offers opportunity for the individual to develop—to live.

We know the relationship of strain to physical disorders, but we know little of the relationship to social and mental disorders. The presence of joy indicates the absence of mental disturbances. Happy people do not just happen to be so. The situation is a combination of elements, many of which can be controlled. Education must study normality and learn how to produce it; then less time will be needed to treat disorders. Interest driven activities will carry on into life the by-products joy and happiness which build normality.

G. Continued Development Possible Throughout Life. Throughout the ages men have been seeking for perpetual youth. Ponce de Leon sought for a fountain. Peter Pan represents the hope of many thinkers. In neither of these proverbial ways can youth be maintained; and yet around us we see people, old in years, yet young; and, sadder still, we see people young in age, who are old.

What is youth? Youth may probably be defined as a spirit eager for new experiences. The individual who is eager to meet new people, see new countries and engage in new experiences is young even though he may be one hundred years old. When man ceases to get a thrill from new experiences he is dead. How can this growing edge of life be maintained? This is a question which thousands of our newly rich are trying to answer. They are seeking for success in new yachts which others have built and others run, in new automobiles which they cannot make and cannot even mend, in trips to Europe, in social functions which bring to them

space on the society page, in keeping up with the *Joneses*, in *putting on a show*. In other words, they are trying to buy an interest in life. They thought they could buy happiness, they still think they can buy it. It is not for sale.

Happiness consists of challenges which come from new activities. The formula for happiness would be set up in a three-fold way: being challenged by new activities; having sufficient skill to be within striking distance of success in the activities; and receiving social approval for success if the activities entered into are high on the *social value* scale. This formula holds for the small child bouncing a ball, or molding sand—for the adolescent girl playing hockey or the boy playing football—for building a radio or experimenting in science. It holds for middle life, in golf or pottery making, in building a cabin, participating in music, excavating a buried city or presiding over a woman's club,—it holds in old age.

Education should consider, as one of its prime functions, the organization of children in activities which would make it possible for them to carry out this formula. This would mean that the child should have opportunities to engage in a wide range of activities, in musical or manual arts, science, sports or, games, so that he would *obtain a sufficient amount of skill* to be *within striking distance of success*. Physical education activities or sports and games present one of the great groups of life challenges.

H. Summary. We have discussed the four levels of development in the education of man: organic, neuro-muscular, interpretative-cortical and emotional-impulsive. We have pointed out the contribution of physical education activities. It will be noted in the figure on page 6, that the arrows point upward. This indicates the possibility of other levels. These other levels will represent emergents in which the result will not be a sum total of parts. What these levels are cannot be conceived. As great a scientist as Eddington⁷⁵ is convinced that when everything in the universe, reachable and measurable by modern science, has been discovered, a large part of the universe—the ultimate realities—has not been reached at all. Viewing the inverted pyramid development, seeing the human organism with trillions of cells coördinated, viewing the growth of the cortex through interpretive power, and viewing the emotional drives, gives us a suggestion of marvelous yet mysterious possibilities—the whole significance of which the mind cannot grasp.

⁷⁵ Arthur Stanley Eddington, *Science and the Unseen World*, The Macmillan Co., New York, 1929.

The next level may be that which the author of "All Quiet on the Western Front" seemingly attempted to portray. He gives a picture of a boy in the trenches. He is the only survivor of a group of companions. He goes home on furlough—back to his old school. He hears the hollow symbols which the old school master is giving about the glories of war. He hears the symbols the old men in the tavern are giving about the glorious war. He stands with his mother and sister looking over the collection of butterflies he had collected when he was a boy. He cannot remain at home for his full furlough but rushes back to the Front. There in the trenches, with mire underneath, with almost every bit of loveliness destroyed, with all of the baser human emotions aroused as two lines of men face each other across No-Man's-Land, a lovely butterfly flutters over the embankment. Here is beauty. The hand reaches out toward it—the unhated enemy rifle is leveled—and, just as this bit of beauty is within grasp, the hand withers. He missed the beauty which you and I as humans can conceive; and yet, on the next emergent level of development, he may have found it.

PROBLEMS

1. The superintendent of schools has suggested that the name "department of physical education" be changed to "department of health education." He has asked your advice on the subject. What would you say?

2. An expert on school surveys and curriculum construction has spent a year in your city. He has rendered a very long and detailed report to the superintendent relative to the correlation and integration of the various portions of the curriculum. In his recommendation relative to physical education he has said, "The department of physical education must confine itself to the building of organic power. It must establish specific objectives which indicate power building. This, and only this, should be considered its objective." He further says, "The department of physical education should in no way be concerned with the interpretive level or be concerned with character education. Particular departments are set up in the school to accomplish these latter objectives." The superintendent has asked you to comment on this recommendation. What would you say?

3. A prominent committee, representing the merchants and the press, has petitioned the board of education to build a large stadium in which the athletic contests of the high school may be conducted. It has been contended that the stadium will give opportunities for recreation for ten thousand people. It has been further maintained that this type of relaxation is what people need. It has been forcefully set forth that children can derive all the benefits from watching a game that they can from playing in a game. You have been advocating that the money which would go into the building

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of the stadium be used to increase the size of the junior and senior high school athletic fields. The local press has demanded that you defend your recommendation. You have accepted the challenge. What would you say?

4. In a local parent-teacher association meeting you stated that play was creative and that recreation was merely recreating. You further stated that play is a power building activity while recreation is largely a power maintaining activity. The superintendent of schools has asked you to elaborate upon this discussion. What would you say?

PRINCIPLES

1. Objectives must be selected before it is possible to decide any administrative policies.

2. An activity which affects changes at any one level affects changes at all levels of development.

3. Organic power is the developmental source of health. Such power must be gained through activity.

4. The removal of devitalizing strains and drains and the establishment of health habits merely represent starting points for the development of organic power.

5. The acquiring of skill, while based upon organic power, represents a higher development than mere strength.

6. The individual with high cortical power must acquire all meanings of symbols through activity. The hereditary cortical power represents only possibilities.

7. Emotions color the *wants* of an individual and therefore become the prime factor which determines behavior.

8. The foundation for leisure time activities must be laid in the period of rapid development before the end of adolescence.

9. Play represents power creating activities while recreation is largely power maintaining.

10. Physical education activities, especially in the years before the onset of puberty, are of utmost importance in promoting a unified self in the individual and do much to act as a moral equivalent of delinquency and to promote a normal mind.

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CHAPTER VI

(Organic Level)

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PART III
SETTING THE STAGE—ORGANIZATION

After the objectives have been selected the next step is to clear the path so that teaching may take place. This is sometimes referred to as *setting the stage*. It involves two procedures. The first has to do with organization—providing buildings, equipment, supplies, engaging a staff, etc. If we follow the railroad illustration it would mean the laying of the track, providing the cars and engine, publishing schedules, establishing rates, etc. The function of getting ready before the arrival of the first passenger has been thought of as organization. The second function refers to the problem of conducting the activity—the day to day procedure that is necessary for operation. In the railroad illustration this would mean the selling of the tickets, giving information, making contact with the public, furnishing supplies and equipment needed from day to day, issuing instructions, reports, etc. This has been called routine administration, or just administration, reserving organization for the first procedure just described. The two functions cannot be separated because as soon as organization is completed, reorganization becomes necessary and this becomes a part of routine administration. For the sake of analysis we will call the first phase *organization*—the setting up of the organization so that it is ready to function; and the second phase, *routine administration*—the day to day procedure in connection with the running of the organization. These two functions will differ widely as the situations vary in governmental agencies and in institutions. Situations differ because objectives and the means of attaining them differ. In each situation where teaching is involved and not just promotion, five elements will have to be considered:

- Time in which to participate in activities;
- Place where activities are to be conducted;
- Classification of activities for individuals;
- Classification of individuals for participation in activities;
- Leadership of activities in the light of desired results.

CHAPTER VII

ORGANIZATION OF DEPARTMENTS—POLITICAL AND INSTITUTIONAL

Organization and routine administration together with the five elements of the teaching situation must be considered from the standpoint of four political divisions and the institutional schools. The political divisions are: federal, state, county and city governments.

I. ANALYSIS OF ADMINISTRATIVE PROCEDURE IN POLITICAL DIVISIONS

In addition to the establishment of laws which permit the expenditure of public money some governmental agencies have established departments to promote certain phases of education. In most instances where these promoting agencies have expended public money legislation is necessary. A résumé of some of these laws will be found in Chapter V.

A. Federal Government. The place of the federal government in the direct management of educational institutions has been under discussion since the time of the adoption of the constitution. The decision at the time of the formation of the federal government was that education should be left to the states (page 71). The feeling that the federal government should not interfere with the problem of education was strong. The federal government has in the past and does now, in a round-about way, influence educational procedure in the public schools. The method by which this is done is by subsidizing certain types of activities. This procedure as early as 1862 was attacked as "an unconstitutional robbery of the treasury for the purpose of bribing the states."

The federal government has influenced education by offering certain types of subsidy providing the states meet required conditions. Few states have been able to resist this luscious plum and by accepting federal money they have also accepted the conditions under which activities are to be conducted. In some instances, as in the application of the Smith-Hughes Vocational Education Act, it has affected the entire organization of the school.

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Some of the outstanding acts which may be classified in connection with the above relationships are here noted:¹

Morrill Act of 1862. Land grant college policy established. Attacked at the time as "an unconstitutional robbery of the treasury for the purpose of bribing the states."

Land ordinance for the Northwest territory, 1785, set aside in each township one section for a school.

Experimental Station Act, 1887. Eight years later the Department of Agriculture was organized to supervise these experimental stations.

The Smith-Lever Act of 1914 made possible agriculture extension agents, maintained partly by state funds. Federal funds are not given unless the state accepts the terms of the Act.

The Smith-Hughes Vocational Education Act of 1917 provides federal aid for teaching industrial subjects and home economics.

The Industrial Rehabilitation Act of 1920 provides aid for persons hurt in the industries. The federal government cooperates with the states in providing for vocational courses.

The Sheppard-Towner Act of 1921 provides aid in the promotion of welfare of mothers. Classes for the instruction of mothers are promoted in cooperation with the states on a "dollar for dollar basis."

About two billion dollars is appropriated annually to the states for educational functions which were at one time regarded as outside the domain of federal government.

At the close of the World War there was considerable agitation for a federal physical education bill which would subsidize the activities in certain states where it seemed impossible to raise a sufficient amount of money through regular channels for the support of physical education. At the present time heavy pressure is being exerted on the government to establish a department of education, with the head of this department sitting as a member of the President's Cabinet.² The question which will be constantly asked is, will this tend to equalize educational privileges or will it tend to create a national bureaucracy?³

In the absence of federal aid a number of agencies have been established for the promotion of physical education. Under the Department of Interior there is an Office of Education. This was founded as and for many years was termed the Bureau of

¹ William A. Cook, *Federal and State School Administration*, Thomas Y. Crowell Co., New York, 1927.

² *Federal Relations to Education*, A Memorandum of Progress by the National Advisory Committee of Education, Washington, D. C., 1930.

³ William A. Cook, *op. cit.*, p. 47.

Education. Under this office there is a Division of Physical Education and School Hygiene. This Division has a well trained staff which assembles data relative to laws, policies and procedures in connection with various states and local communities. It issues bulletins from time to time, calls conferences and acts as an information and service clearing house. There are, in addition, a number of nation-wide professional organizations which have no official governmental relationships.

The American Physical Education Association⁴ has been in existence since 1885. It publishes *The Journal of Health and Physical Education*, *The Research Quarterly*, and renders wide service to the field.

A section for the promotion of physical education and health was formed in 1895 in the National Education Association.⁵ Although the name has been changed several times it is now known as the Department of Physical Education and School Health.

The National Physical Education Service⁶ is a part of the National Recreation Association and was established in 1927. It maintains a secretary who promotes physical education. The office gives advice concerning state laws, organizes the state directors of physical education and health and conducts an information bureau relative to standards and procedures.

The American Academy of Physical Education⁷ was established in 1930 for the purpose of stimulating research, recognizing meritorious work, and honoring outstanding leaders in the field.

Inasmuch as physical education is now largely a public school responsibility it seems that the widespread feeling over the country in favor of the amalgamation of the American Physical Education Association with the Department of Physical Education and Health of the National Education Association would be a wise procedure. One of the major problems which physical education faces is that of interpreting the profession to general administrators. An affiliation which would bring administrators of the public schools in closer contact with the members of the physical education profession would be of great value. The National Education Association has affiliations with the state and district groups. These various groups hold their institutes and conventions in which sec-

⁴ American Physical Education Association, Box 362, Ann Arbor, Michigan.

⁵ National Education Association, 1201 Sixteenth Street, N.W., Washington, D. C.

⁶ National Physical Education Service, care of National Recreation Association

315 Fourth Avenue, New York City.

⁷ American Academy of Physical Education, care of Jay B. Nash, Secretary, New York University, School of Education, Washington Square E., New York City.

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tions are devoted to physical education and health. In many states as California, Michigan, New York and Oregon practically every physical educator is a member of such an organization. An affiliation of these two powerful organizations would certainly be a step forward in the advancement of the profession of physical education and health.

B. State Government. We have already noted the wave of state legislation for physical education since the World War. These laws did not become effective (page 49) until provision was made for some type of state supervision.

The dates of the appointment of the first director in each of the twenty-one states having such an official is indicated in the following table:

TABLE XIX

FIRST DIRECTORS OF PHYSICAL EDUCATION AND DATES OF
THEIR APPOINTMENT ⁸

(1) Maryland .	September 1, 1916	W. A. Burdick
(2) New York	January 1, 1916	Thomas A. Storey
(3) California	September 1, 1917	Clark W. Hetherington
(4) New Jersey	August 1, 1918	F. W. Maroney
(5) Michigan	August 1, 1919	Floyd Rowe
(6) Alabama	March 1, 1920	O. C. Bird
(7) Pennsylvania	October 1, 1920	Charles Keene
(8) Connecticut	February 1, 1922	A. G. Ireland
(9) Massachusetts	September 1, 1922	Carl L. Schrader
(10) Louisiana	September 1, 1922	J. E. Lonbard
(11) Missouri	August 1, 1923	Henry S. Curtis
(12) West Virginia	July 1, 1923	Melville Stewart
(13) Virginia	September 1, 1924	G. C. Thoner
(14) Georgia	December 1, 1925	Caro Lane
(15) Minnesota	September 1, 1925	Edgar Everts
(16) Delaware	October 1, 1926	P. S. Prince
(17) Maine	September 1, 1926	N. P. Jordan
(18) Florida	September 1, 1927	C. M. Miles
(19) Ohio	August 1, 1927	Clifford Brownell
(20) Illinois	September 1, 1929	Lewis Kulcinski
(21) Texas	June 1, 1930	R. N. Sandlin

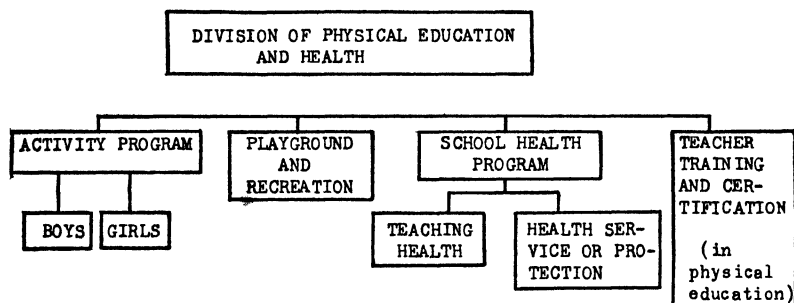
The first physical education laws were elaborate and outlined in great detail the manner in which the activities should be carried out.⁹ More recent pacts have been very simple, leaving the details

⁸ Data gathered by correspondence.

⁹ Thomas A. Storey and Willard S. Small, *Recent State Legislation for Physical Education*, Bulletin No. 1, U. S. Government Printing Office, Washington, D. C., 1922.

of the state boards of education and to the state superintendents of public instruction. The most recent law in Texas illustrates this point.¹⁰

The following is a recommended state set-up of best procedures for the promotion of physical education and health:



Showing Best Procedures in Organization of State Department of Physical Education and Health

Physical education legislation should be pressed only where it is possible to arouse public opinion in no other way. If there is to be a law it should merely make mandatory the teaching of physical education and health, leaving the application to the state boards of education. Rulings of the state board of education should be mandatory and should probably designate minimums relative to supervision, time allotment, space provisions, and leadership training.

The title of this division in the states varies somewhat. Some states designate it as the Bureau of Physical Education; others, the Division of Physical Education and Health. The latter name seems to be generally accepted. The functions of these departments vary in accordance with laws and customs which have grown up within the state. The following are typical examples:

¹⁰ *Texas*.—An Act prescribing that physical education courses approved by the State Department of Education shall be taught in the public schools of Texas; and authorizing the State Superintendent of Public Instruction to provide for the direction and supervision of physical education instruction in the public schools.

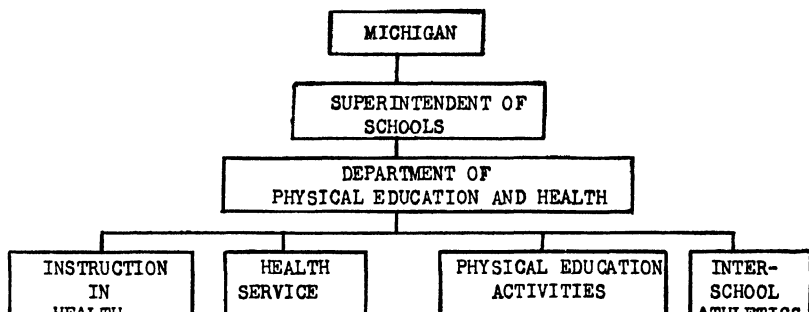
Be it enacted by the Legislature of the State of Texas: that instruction in physical education shall be established and made part of the course of instruction and training in the public elementary and secondary schools of the State by September 1, 1930.

The State Superintendent of Public Instruction shall prepare courses on instruction for the public schools of the State for the purpose of carrying out this Act.

1. *Michigan.*

This division presents the Four Square Program of physical education and health including the control of inter-school athletics. In brief this Four Square program covers the following:

a. *Instruction in Health.* This instruction is carried on by class room teachers, nurses, physicians, physical education instructors, and special lecturers throughout the grades I to XII. As a rule there is no time allotment but certain of the upper grades do set aside ten minutes daily. This instruction in health covers: cleanliness, nutrition, sleep, rest, exercise, prevention of disease, contribution of hygiene, etc. This work is carried on in the regular class room procedure in connection with special classes and through extra curricular programs. Emphasis is placed upon coördination of all activities in the school with a view to instilling in the children wholesome health habits.



Courtesy of A. W. Thompson.

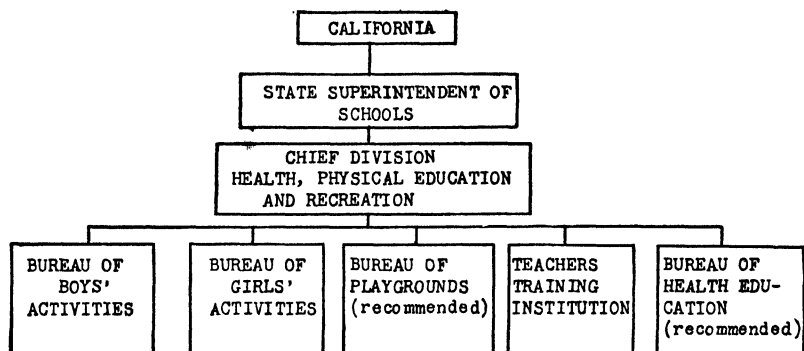
State Organization of Physical Education and Health in Michigan

b. *Health Service.* Service in health is carried on by the same staff throughout grades I to XII. The procedure is through medical examinations, daily inspection, correction of defects, organization of safety programs and the establishment of a wholesome hygienic environment in connection with school and home.

c. *Physical Education Activities.* The program aims for the development of organic power, development of skills, and the development of proper standards and attitudes of tolerance, courtesy and sportsmanship. These activities are carried on by class room teachers and specialists throughout grades I to XII. Thirty minutes daily in the elementary school and one hundred and twenty minutes per week in the high school are devoted to it.

d. Inter-school Athletics. This program is carried out by the director of physical education and other teachers throughout grades IX to XII, inclusive. Practice is limited to two hours after school. Inter-school games are permitted Friday and Saturday nights and Saturday afternoons, with an occasional game on Friday afternoon. The activities cover a wide range of athletics.

2. *California.*



Courtesy of N. P. Neilson

State Organization of Physical Education and Health in California

The program in California is indicated by the above, together with recommendations for the establishment of the Bureau of Playgrounds and the Bureau of Health Education.

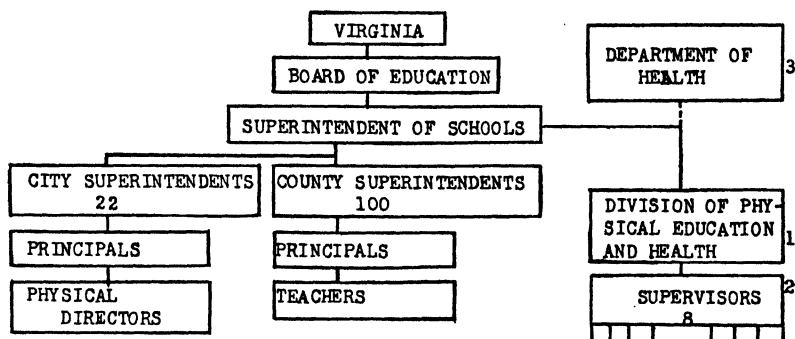
The functions of this division are to promote adequate physical education and health in teachers colleges, junior colleges, junior and senior high schools and elementary schools in the state; to render service to schools and school officials in providing information, in making decisions and interpretations; to carry on coöperative research and to establish means whereby the programs in the school may be evaluated and thus improved.

In addition to the above, special projects are undertaken regarding standards of certification, the curriculum of special training in physical education, the evaluation of programs of physical education, the issuing of state manuals, and the setting of standards for credits and time allotments. The Bureau also conducts special experiments in coöperation with local schools, calls regional conferences, makes an annual report on progress, and in any other way possible promotes the profession within the state.

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3. *Virginia.*

It is especially to be noted in the Virginia plan that for the purpose of supervision the state is divided into ten districts, in each of which a supervisor of physical education and health oper-



Courtesy of E. V. Graves.

Organization of State Department of Physical Education in Virginia^{11, 12, 13}

ates. These supervisors are responsible to the state supervisor of physical education and health but work under the direction of the division superintendent of schools in each county. The range of activities is indicated in the following report of the state supervisor:

ANNUAL REPORT TO STATE SUPERINTENDENT OF SCHOOLS FROM DIVISION OF PHYSICAL AND HEALTH EDUCATION

The State Board of Education in 1927 approved a plan of reorganization of the Division of Physical and Health Education, which went into effect in September of that year. This plan provided for the division of the State into ten districts, in each of which a district supervisor of physical and health education was placed. These supervisors are responsible to the State Supervisor of Physical and Health Education, but work under the direction of the division superintendent of schools in each county. They assist the teachers and principals in their efforts to develop and carry on a sound program of physical and health education in the schools throughout the State. They do not work as inspectors, but serve as supervisors or "helping teachers." Their allotment of time in each county is based on school enrollment. Weather and road conditions influence their schedules to a great extent. The following are some of the accomplishments brought about during the first year

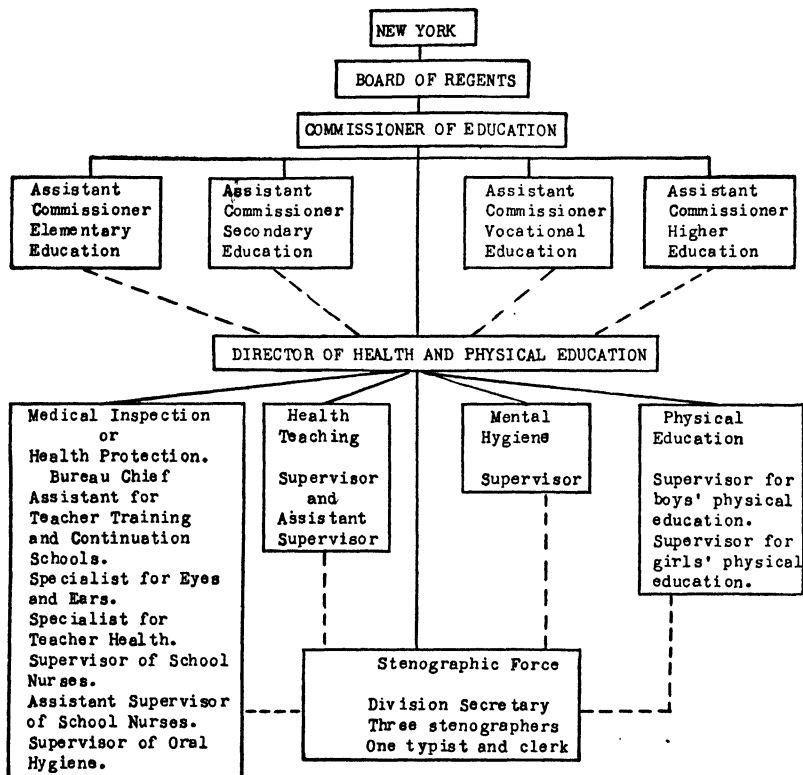
¹¹ (1) Supervises 22 city schools and the teacher training institutions.

¹² (2) Work under county superintendents.

¹³ (3) State supervisor coöperates with department of health.

under the new organization through the coöperation of the district supervisors with the division superintendents, principals, teachers, and health units:

Total number of school visits made	4,582
Total number of classes supervised.....	14,688
Number schools putting on physical education program for first time this year.....	1,366



Courtesy of Frederick Rand Rogers.

Organization of State Department in New York

Increase in group activities embracing 85% of enrollment..	over 25%
Number schools adding physical education equipment.....	731
Number schools having toilets made sanitary.....	793
Number with water supply made safe during year.....	97
Number school instigating supervised lunch.....	480
Number of special calls on the district supervisors aside from their regular itineraries	572

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Experimental work, such as sanitary scoring, personal health scoring, and so forth, was done in 25 counties.

The per capita cost of this supervision service was approximately five cents per school child.

Over 75,000 school children met with minimum requirements for physical fitness, an increase over last year of 100%.

4. *New York.*

In connection with the New York organization the following are listed as the principal functions which the state department of physical education stresses:

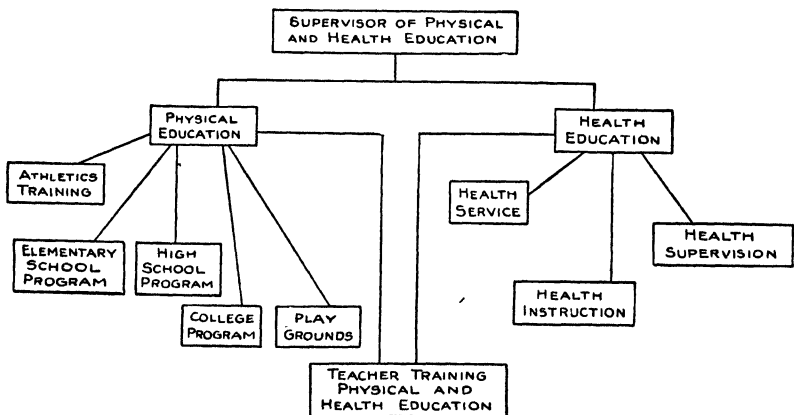
To determine the objectives of physical education.

To rewrite, if necessary, the law and modify present syllabi in accordance with the objectives or to prepare new programs and syllabi in accordance therewith.

To administer the law and the programs.

The above should be accomplished through publications, supervisory visits to local school systems, interpretative letters, lectures and institutes, teacher preparation in normal schools and surveys which will judge results of programs in local communities.

5. *Florida.*



Courtesy of C. Miles.

Organization of State Department in Florida

6. *Summary of Recommendations from Best Practices.*¹⁴

a. The name of the department should be *Physical Education and Health*. Where the health phases of activities involve the medical profession there should be a division in charge of a physician for close coöperation with the state board of health.

b. Supervision of the activity programs should include all inter-school athletics. The program in health should include not only health service and protection but the teaching of health. Health service should be carried on in coöperation with the state board of health. The teaching of health should be a coöperative procedure within the local schools. There should be a division promoting play and recreation activities. While this service may not be necessary in some of the larger cities the predominance of rural conditions in many of the states makes the department paramount.

c. There should be close affiliation with the teacher training institutions and with the granting of certificate. The state program can probably best be furthered through the training of teachers and through the setting up of standard certification. The state supervisor should act in an advisory capacity to all teacher training institutions. The state office should issue manuals. These manuals should be rich in suggestions on all vital points in the program. Application should be left to local districts. The state office should maintain a service bureau. It should be the purpose of this bureau to keep the profession informed in regard to forward movements and to act as a clearing house for all inquiries made by superintendents, principals, teachers and lay individuals.

d. The state department should keep in close contact with semi-educational agencies. Experience has shown that Parent-Teachers Associations, Service Clubs and Federation of Women's Clubs can be of great assistance.

e. Through personal contact and otherwise the state department should promote a professional spirit, without which teaching becomes ineffective.

f. The state department should recognize the responsibility of keeping the public informed relative to the objectives of physical education and the state program.

C. County Government. Physical education is more and more being organized by the county unit, especially within states which

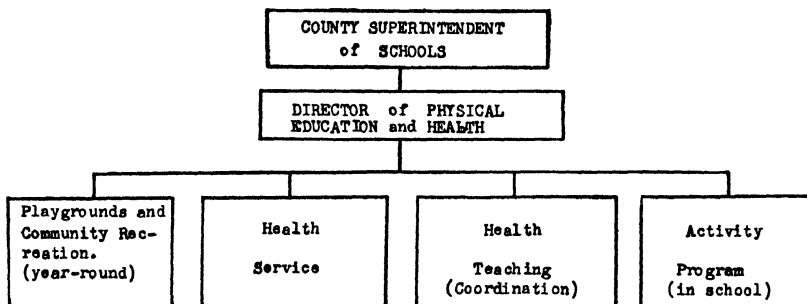
¹⁴ J. R. Sharman, "Standards in the Administration of a State Program of Physical Education," *Journal of Health and Physical Education*, Vol. I, No. 6, American Physical Education Association, Ann Arbor, Michigan, June, 1930, p. 25.

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are more or less rural. The county organization has assumed great strength in California, Virginia and Maryland.

Principles Relative to County Supervision.

1. The following figure is a suggestion for county government:



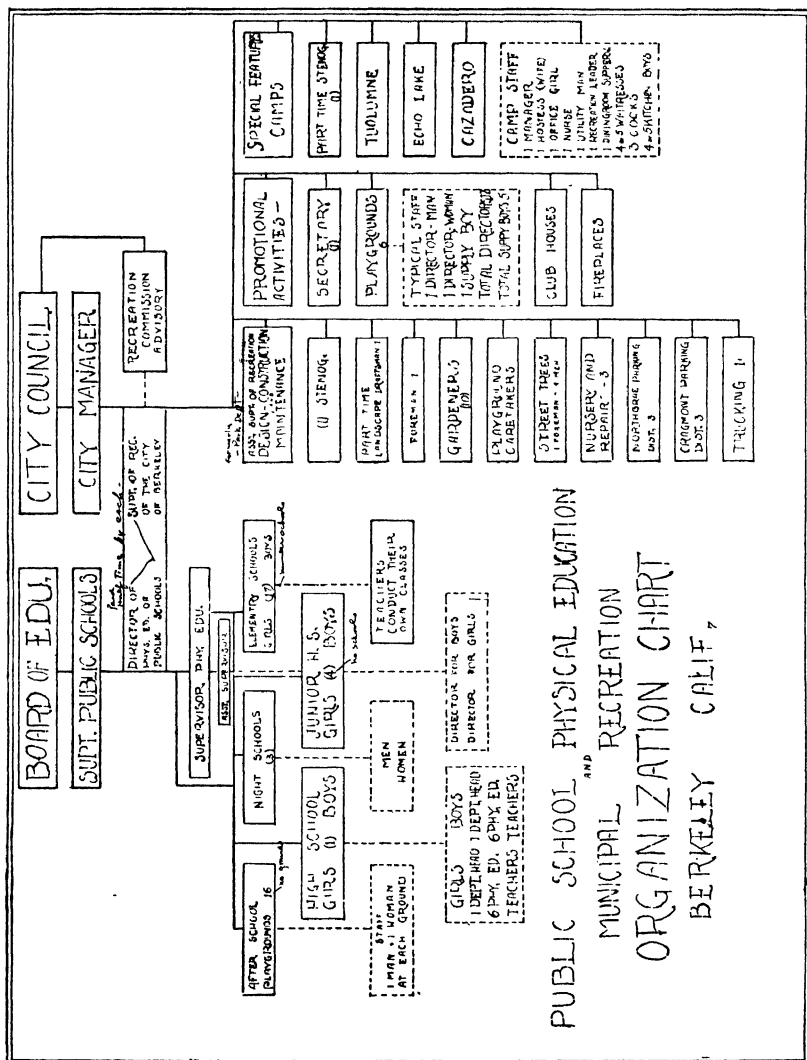
Suggested Organization of County Department of Physical Education and Health

2. Outside of the city the county is the logical supervisory unit for physical education. This supervision is comparable to that in city systems on page 195. The program should be established on a year-round basis with emphasis on the play and recreation life of the people. It could well be extended to include not only the activities of the school-age child on legal school days but to the entire community on all days. This type of supervision seems to be the only one which points to a successful program outside of the large cities.

D. City Government. A division of responsibility from the standpoint of the city was considered in Chapter IV. It was there suggested, in order to avoid confusion, that the city and the school district divide responsibilities in play and recreation activities. A specific suggestion for this division of responsibility was noted on page 76. In the absence of a complete division of responsibility the three coöperative plans were suggested on pages 83 and 85.

Many communities have recognized the necessity for coöperation between the school district and the municipality. The table on page 52 indicates the percentage of cities in this country which have some type of coöperative plan. The particular way in which this is being accomplished in a number of cities is sufficient to show the trend at the present time.

1. *Berkeley, California.*



Courtesy of Chas. W. Davis.

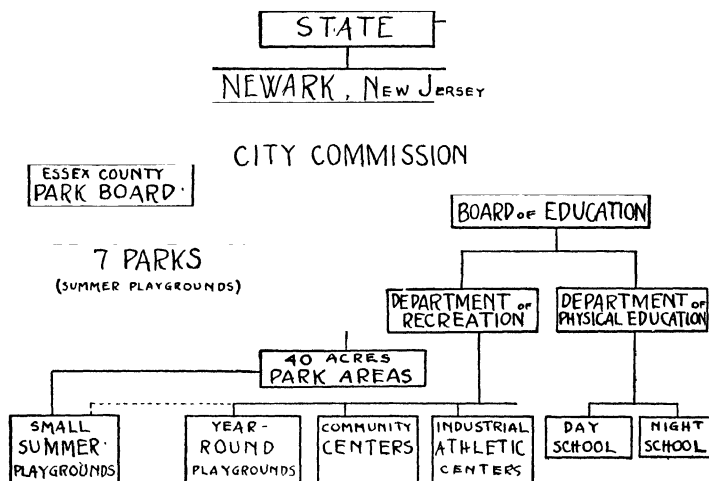
Coöperative Plan in Berkeley, California

In this plan the city has combined the activities of the recreation department and the park department in accordance with our general thesis and has tied up all of the park and playground

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activities with the schools by means of employing a joint executive. In this manner it is possible to delegate to the schools the responsibility for the play activities of the children and to carry on under the municipal arm the recreation activities for adults and family groups. This is a very effective organization.

2. Newark, New Jersey.

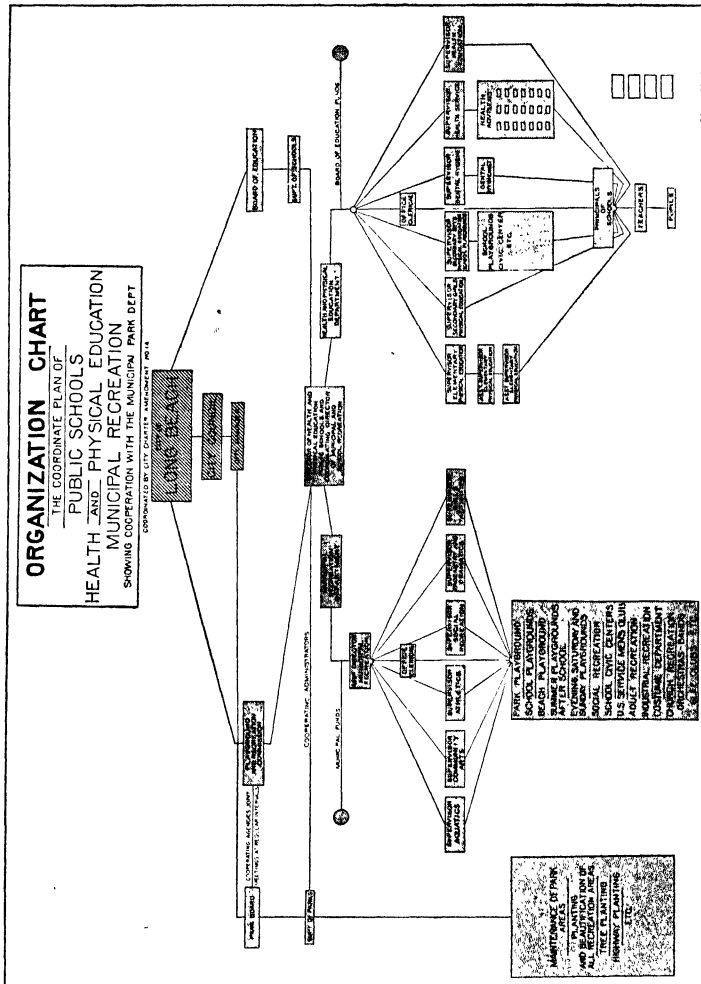


Existing Organization in Newark, New Jersey

The organization in Newark indicates another type of procedure. In this situation the large parks which serve the city are under the control of the Essex County Park Board. The board of education conducts the playground activities for the school-age child both on the school yards and on the small municipal park areas.

A proposed reorganization in Newark will be noted on page 168. Newark has always been committed to the proposition that the playground activities of children are the responsibility of the board of education. The pioneer work which has been performed in Newark has been far reaching.

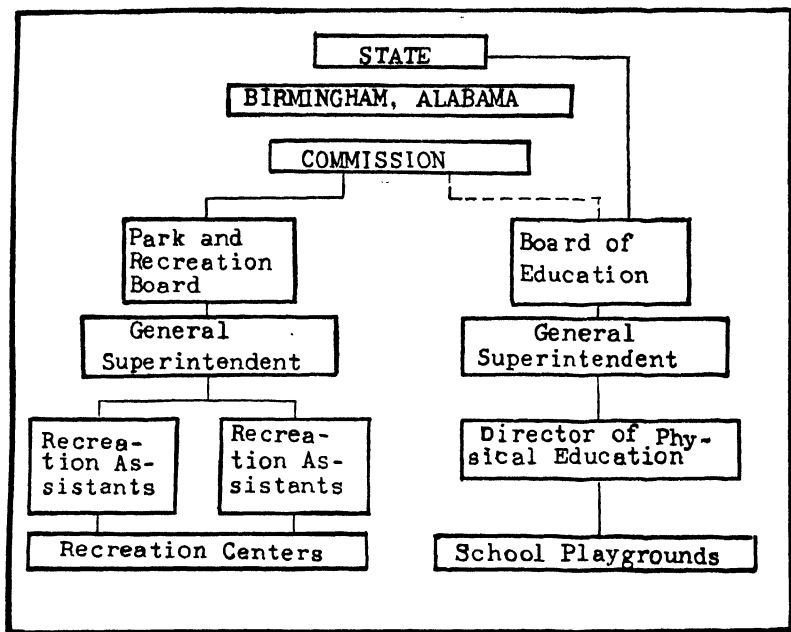
3. *Long Beach, California.*



Courtesy of Charles Hunt.

Cooperative Plan in Long Beach, California

The coördination of the activities of the municipality and the school district is here noted. Again the activities are conducted by a joint executive who is responsible to the superintendent of schools on the one side and the city manager, aided by an advisory committee, on the other. The set-up in Long Beach represents one of the most progressive models now in operation.

4. *Birmingham, Alabama.**Organization Plan in Birmingham, Alabama*

In Birmingham the Recreation Enabling Act of the State combines the activities of the playground department and the park department. The figure on page 76 indicates the absence of legal complications since the school districts conduct school playgrounds and the municipality, recreation activities. This represents very progressive legislation.

5. *Gary, Indiana.*

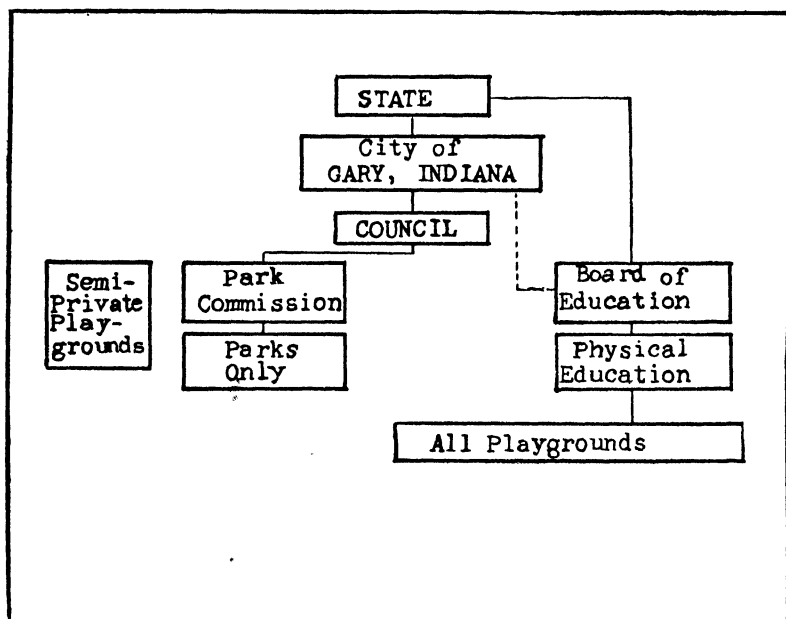
The organization of the city of Gary is also an excellent example of the division of responsibilities of the board of education and the municipality.

6. *Battle Creek, Michigan.*

This indicates a very desirable division of responsibility. The plan has produced excellent results for a number of years.

7. *Pasadena, California.*

Pasadena has very satisfactorily solved the problem of the relationship of the municipality to the board of education.



Division of Responsibility in Gary, Indiana

Other cities which have excellent plans for division of responsibility could be noted, such as Oakland,¹⁵ Santa Monica, and San Diego, California; Ann Arbor and Grand Rapids, Michigan; Montclair, New Jersey; and Binghamton and Ithaca, New York.

In a number of the larger cities there is so much overlapping of responsibility that the condition is chaotic. There seems to be little hope in the immediate future for the solution of this situation. This confused situation is noted in New York on page 157, and Chicago on page 58. In all probability, smaller cities which have not become static will have to point the way by means of extensive experimentation before it will be possible to get any action in the larger ones.

8. *Summary of Recommendations from Best Practices.*

a. Playground activities of the children of school age are essentially carry-over laboratory school activities and should therefore be organized at the school under the direction of the board of education.

¹⁵ Jay B. Nash, *Organization and Administration of Playgrounds and Recreation*, A. S. Barnes and Co., New York, 1928.

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b. Recreational activities for adults and family groups should be organized by the municipality under some type of a combined park and playground department.

c. Where a strict division of activities is not possible some co-operative plan should be entered into which would avoid overlappings and misunderstandings.

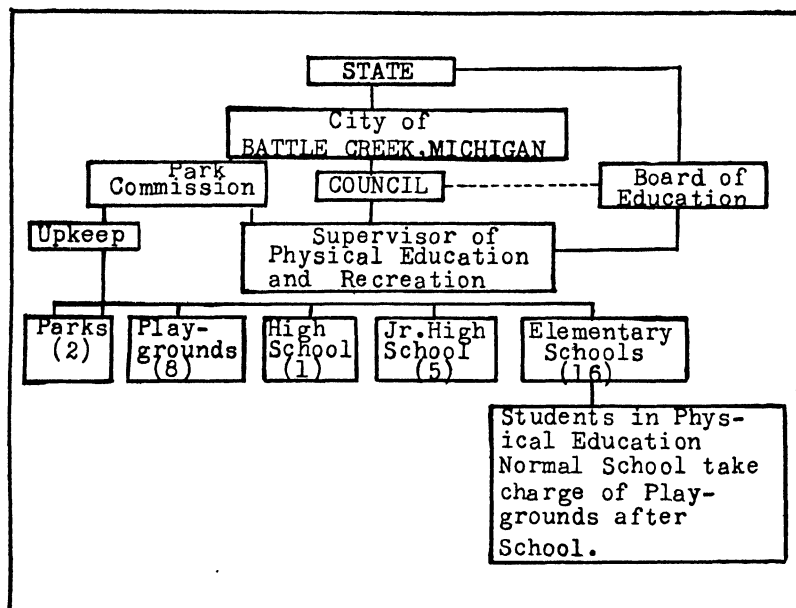


Chart Showing the Relationship of the Park Commission and the Board of Education in Battle Creek, Michigan

II. ANALYSIS OF ADMINISTRATIVE PROCEDURES IN INSTITUTIONS

In addition to setting up administrative procedures in connection with political division we shall now consider those in the institutions which are closely related to public school education. The two types of administration—organization and routine—must also be considered from the standpoint of these institutions:

Standard Schools

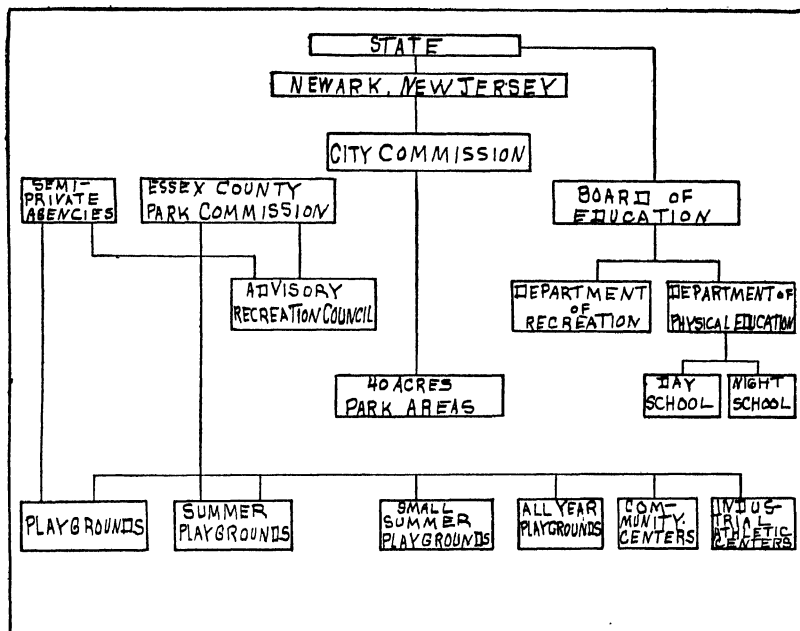
Universities and Colleges
Teacher Training Institutions

- Junior Colleges
- High Schools
- Elementary Schools
- Special Schools*
 - Trade Schools
 - Vocational Schools
 - Part-time Schools
 - Night Schools
 - Etc.
- Special Schools for Handicapped*
 - Feeble Minded
 - Deaf and Dumb
 - Crippled
 - Blind
 - Delinquent
 - Cardiac
 - Etc.
- Playground Centers*
 - School Playgrounds
 - Municipal
 - Home Play
- Recreation Centers*
 - Municipal
 - Industrial
 - Philanthropic
 - Religious
- Camps*
 - Municipal
 - Private
 - Philanthropic
 - Institutional
- Semi-public Institutions*
 - Scouts
 - Camp Fire Girls
 - Y. M. C. A.
 - Y. W. C. A.
 - Settlements, Church Social Centers, etc.

A. Colleges and Universities. No attempt will be made in this treatise to touch upon the administrative problem of colleges and universities. These institutions, however, have a point of articulation with the public schools—entrance requirements. These requirements related to physical education may be of two types: a

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comprehensive test as a basis for eligibility to enter college or the recognition of one unit of credit for physical education within the fifteen or sixteen units which an individual must present from the high school.



Proposed Organization in Newark, New Jersey

1. *Comprehensive Physical Education Requirements for College Entrance.* This type of a test would be highly desirable if it were possible to develop one which would really test the ability of an individual to pursue his college career. It should be possible to develop such a comprehensive test along with mental tests. These, together with accomplishments throughout the four years of high school, should give a fairly accurate picture of an individual's eligibility to enter college.

For such a comprehensive physical test McCurdy suggests, "Satisfactory physical examination, satisfactory corrective strength, satisfactory skills, and satisfactory organic capacity." Such tests would be a spur to the setting up of a scientific program in the public schools and would probably do much to stimulate physical education.

2. *Granting of Credit from Secondary Schools.* The other step which the colleges could take would be to allow physical education to be submitted as one of the fifteen or sixteen units required for graduation from high school. This would be of little value unless there could be some assurance that the high school program was carefully organized from the standpoint of securing results. Minimums could be established relative to time, facilities, classification of activities, classification of children, and the training of leadership. The establishment of these standards would undoubtedly stimulate the secondary schools to a more thoughtful consideration of physical education. If such minimums were established each high school would have to set its own standards as to satisfactory accomplishment as a basis for certifying a unit of physical education, both for graduation and for a college entrance requirement.

Twenty-two colleges, in fifteen different states, are at the present time accepting college entrance credit for physical education from those high schools whose standards have been approved by the state department of education, and have been placed on the state accredited list as giving satisfactory programs of physical education.¹⁶ Most of these allow one unit within the sixteen, although a number of them allow one unit within the fifteen offered by the high schools. Among the universities recognizing credit are the University of Southern California, Washington University, Washington State College, the University of Florida, the University of West Virginia, the University of Cincinnati, Ohio University, the University of Nebraska, DePauw University and the Southwestern Missouri State Teachers College.

Eight states, according to Nichols, have set up standards concerning time allotments; training for the certification of teachers; facilities, equipment and program. Upon the successful completion of the four year high school course colleges will accept as entrance credit one full unit of physical education.

These eight states are asking colleges and universities to recognize this unit as one of the fifteen or sixteen required for entrance.

The North Central Association of Colleges and Secondary Schools recommended a unit in physical education and health be required for graduation from all high schools.¹⁷ The Florida Principals' Association favors one unit of credit in physical education

¹⁶ J. H. Nichols, *Proceedings of the College Directors Association*, College Directory, Harry Scott, Rice Institute, Houston, Texas, 1930.

¹⁷ *The North Central Association Quarterly*, Vol. V, No. 2, 4012 University High School Building, Ann Arbor, Michigan, September, 1930.

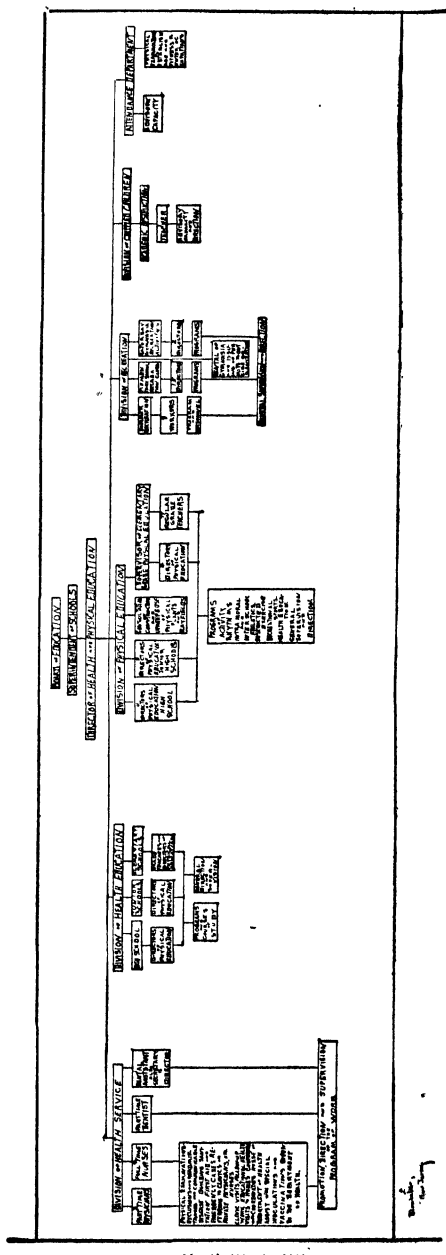
and health within the sixteen required for college entrance.

A definition of what constitutes a unit in physical education and health will be discussed in Chapter XV. Several dangers should be recognized. None of the tests which we have at the present time, as pointed out on page 321, test the real outcomes of education. These real outcomes indicated in the third and fourth levels of development (page 6) are not as yet subject to tests. Any attempt, therefore, to make judgments solely upon the basis of information derived from such tests would be extremely dangerous. This same danger might be pointed out in connection with the various types of mental tests, and an even greater danger relative to the colleges and universities accepting only those who have received upper quartile academic grades in the high school. The disregard of organic capacity, personality and qualities of leadership make such a procedure questionable. If college entrance requirements would tend to set procedure in physical education in secondary schools as narrowly as it has in other subjects of the curriculum, it would indeed be undesirable. A sound program of physical education should carry its own weight in the secondary schools regardless of graduation credits or college entrance requirements. This is well pointed out by Frederick Rand Rogers, Supervisor of Health and Physical Education in New York State, who says :

I am opposed to granting credit for attendance upon physical activity programs. We in New York are coming to believe that a sound program of physical activity will carry its own weight with administrators, and therefore no extrinsic incentive to motivate, or a prop to support the program is necessary. On the other hand, we should approve of a requirement on the part of universities that students exhibit evidence of physical fitness together with a few fundamental skills, and that certain remediable physical defects be eliminated, as pre-requisites to admission. Similar provisions might well be made for granting the high school diplomas. Please note that we are emphasizing the positive achievement of results in terms of improving the health and other phases of character, rather than the securing of abstract credits which in themselves have no meaning to any person other than to him who assigned the points.

B. Teacher Training Institutions. The problem of administration of physical education as it relates to teacher training institutions will be discussed in Chapter XVII.

C. Public Schools. As might be expected no two public school systems in the country are organized on identical plans. By select-



Courtesy of Franklin Armstrong.

Organization of the Department of Physical Education and Health in Montclair, New Jersey

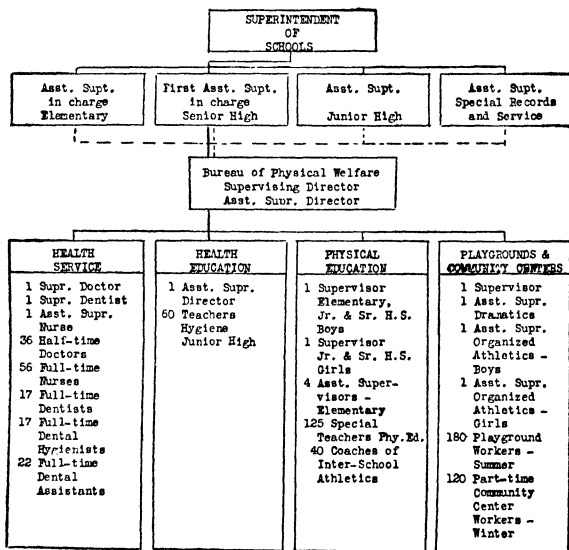
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ing a number of public school systems it is possible to show the tendency in the country at large.¹⁸

1. *Montclair, New Jersey.* The figure on page 171 indicates the organization of the department of physical education and health in Montclair. The main divisions of this department consist of health service, physical education, recreation, crippled children and attendance.

This department is organized to handle not only the activities of physical education and the playgrounds but also the teaching of health and health service.

2. *Cleveland, Ohio.*



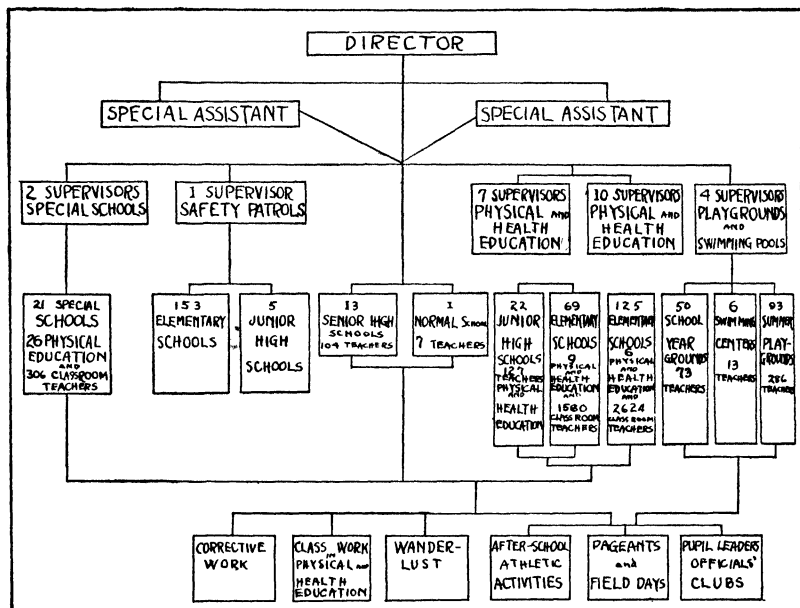
——— Solid Line shows Administration Organisation.
 - - - Broken Line shows Coordinating Influence.

Courtesy of Floyd Rowe

Bureau of Physical Welfare, Cleveland Board of Education

Four branches of the service, namely: health service, health education, physical education and the playgrounds, indicate a well rounded organization.

¹⁸ A. J. Stoddard, "Administrative Policies in Health and Physical Education," reprinted from the *American Physical Education Review*, May, 1929.

3. *Philadelphia, Pennsylvania.*

Courtesy of Grover Mueller.

Organization of the Department of Physical Education and Health in Philadelphia, Pennsylvania

The above indicates the wide range of activities including school playgrounds which come under the jurisdiction of the Director of Physical Education and Health in Philadelphia.

4. *Pasadena, California.*

The range of activities which come under the Director of Physical Education in Pasadena is indeed comprehensive.

5. *Newark, New Jersey.*

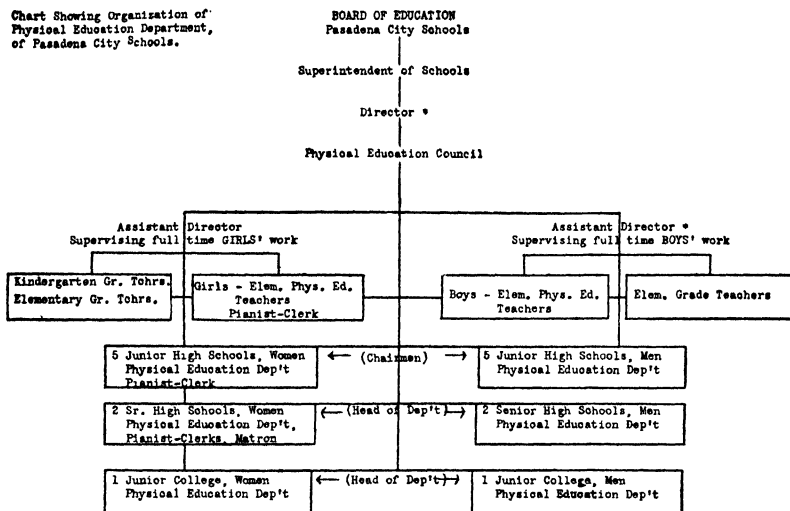
It is possible to get a conception of the broad range of activities covered by the public schools in Newark in the above. A comprehensive system of physical education activities including corrective gymnastics and special activities for the handicapped is especially to be noted.

6. *Springfield, Massachusetts.*

The Director of Physical Education has a broad range of activities and coöperates in a plan of health service with the board of health in Springfield.

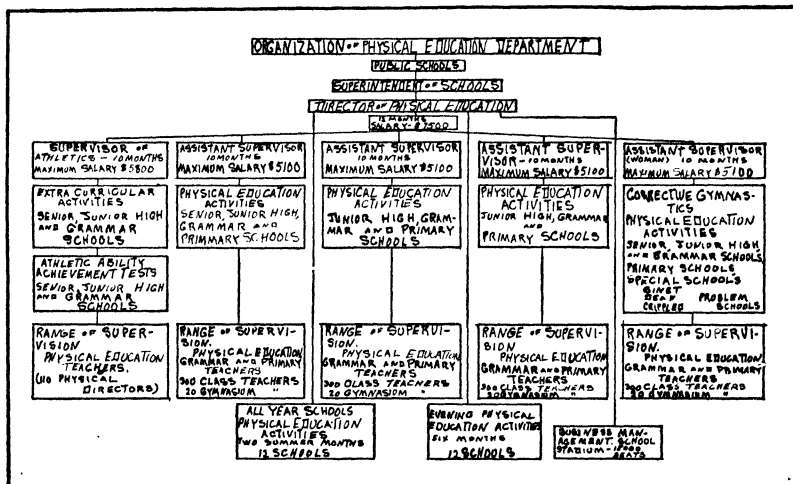
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Chart Showing Organization of
Physical Education Department,
of Pasadena City Schools.



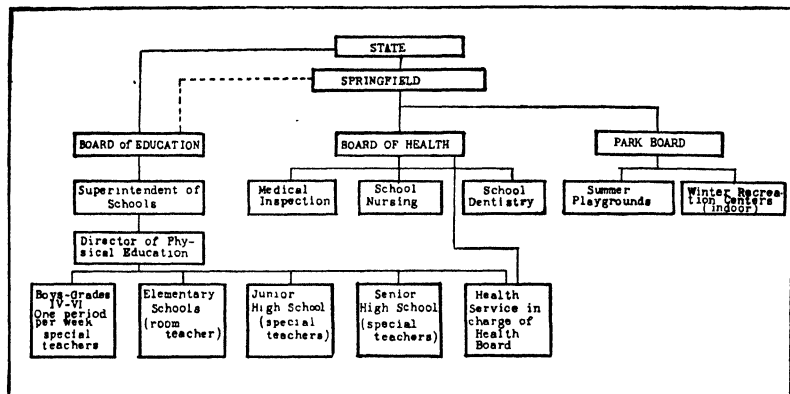
* See Pasadena Department of Recreation Chart

*Organization of the Department of Physical Education and Health in Pasadena,
California*



Courtesy of Randall Warden.

*Organization of the Department of Physical Education and Health in Newark,
New Jersey*



Courtesy Ruth Evans.

Coöperative Plan in Springfield, Massachusetts

7. Long Beach, California.

It has already been noted on page 163 that the Supervisor of Physical Education here is also the Superintendent of Recreation of the city. In this figure the way in which the physical education activities, the playground activities, the health activities and the health service are coördinated, is set forth in detail.

8. Los Angeles, California.

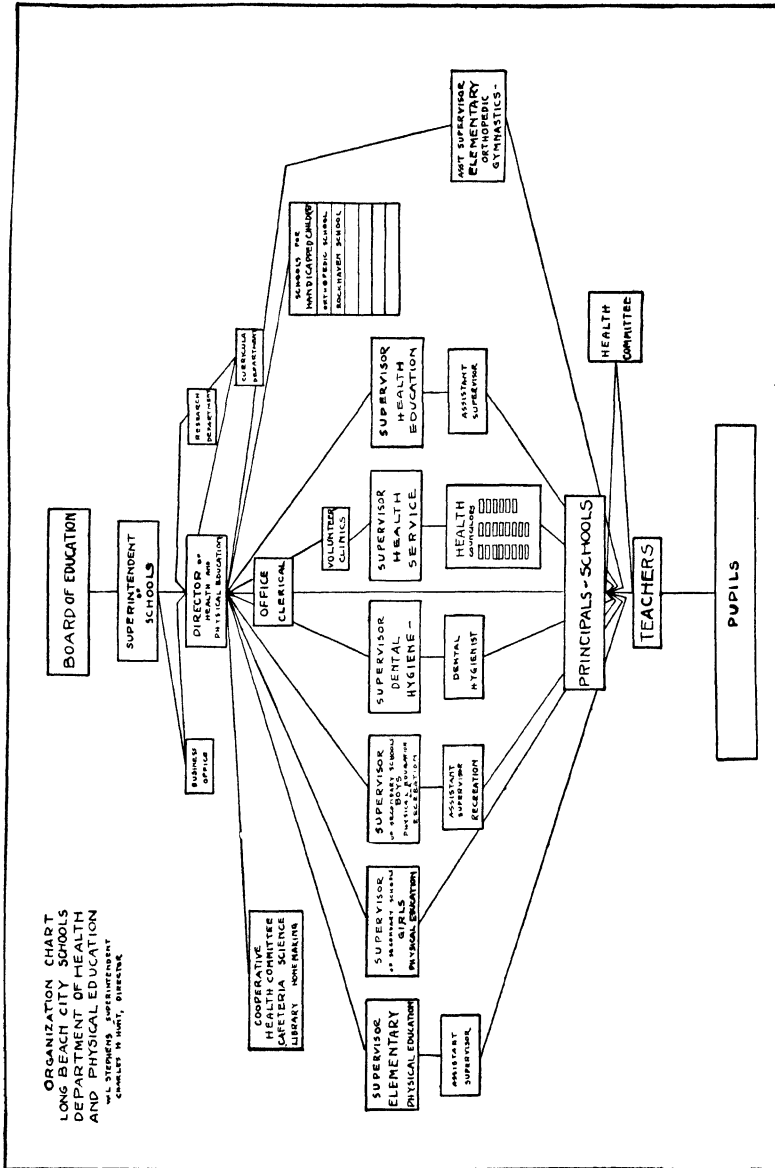
The Los Angeles organization represents a very comprehensive year-round plan of serving the needs of the school age child. It coördinates the instructional work of the school day, the after-school laboratory play periods, the summer playgrounds and the civic centers. The instructional program includes a broad range of activities together with a well organized plan of health coördination. The way in which this city organization functions makes it the outstanding large city department of the country.

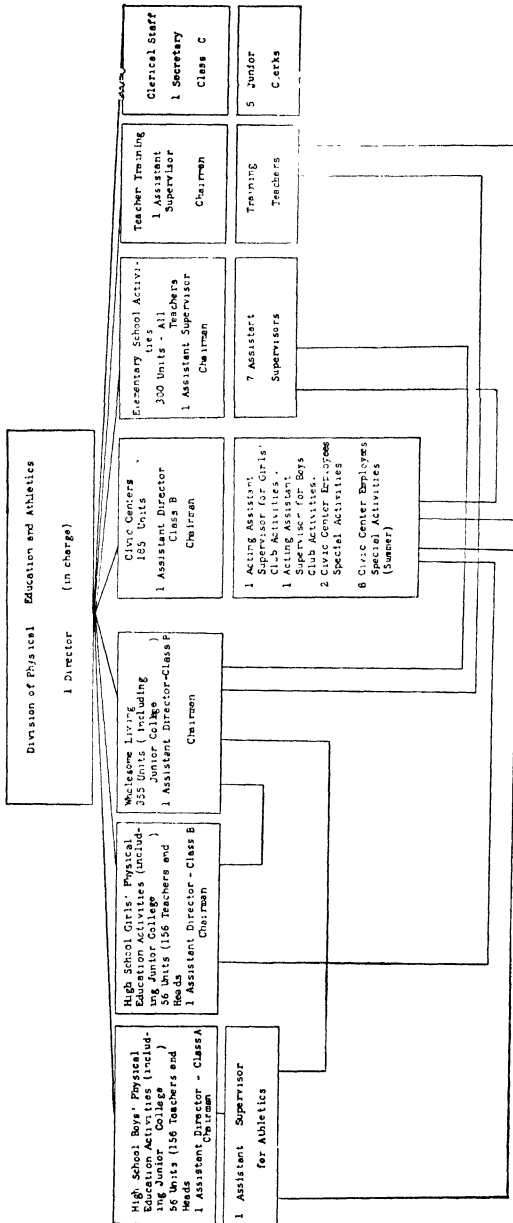
9. Buffalo, New York.

The organization in Buffalo represents a plan of coöperation between the schools, board of education, board of health and the park department, which should be commended. This coördinated plan serves the activity needs of the children on a year-round basis and involves a plan of health teaching and health protection.

10. Detroit, Michigan.

The organization in Detroit represents one of the outstanding large city plans in the country. It involves over six hundred full-

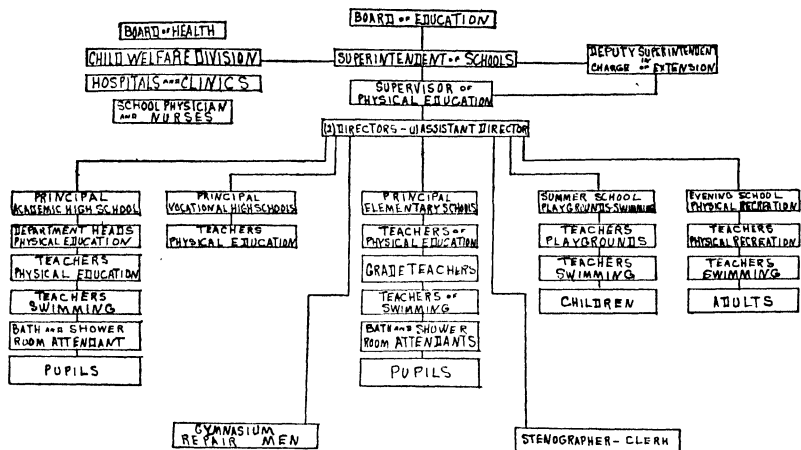




Courtesy of C. L. Glenn.

Organization of the Department of Physical Education, Los Angeles, California

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Courtesy of Carl H. Burkhardt

Organization of the Department of Physical Education and Health in Buffalo, New York

time directors of physical education in addition to a large number of recreational workers who function after 3:15 o'clock on school days and in the vacation periods. Besides having a splendid activity program there is an elaborate system of health protection and health instruction. Many of the schools are organized upon the platoon basis.

11. Binghamton, New York.

The following is the practicable school health program of Binghamton:¹⁹

ADMINISTRATION

Director, secretarial assistant, clerical assistant

School Health Service

Physicians—part-time: chief physician and supervisor of school health service; four assistant physicians; one eye, ear, nose and throat specialist; one orthopedic specialist.

Nurses—full-time: ten with New York State registration and school certification.

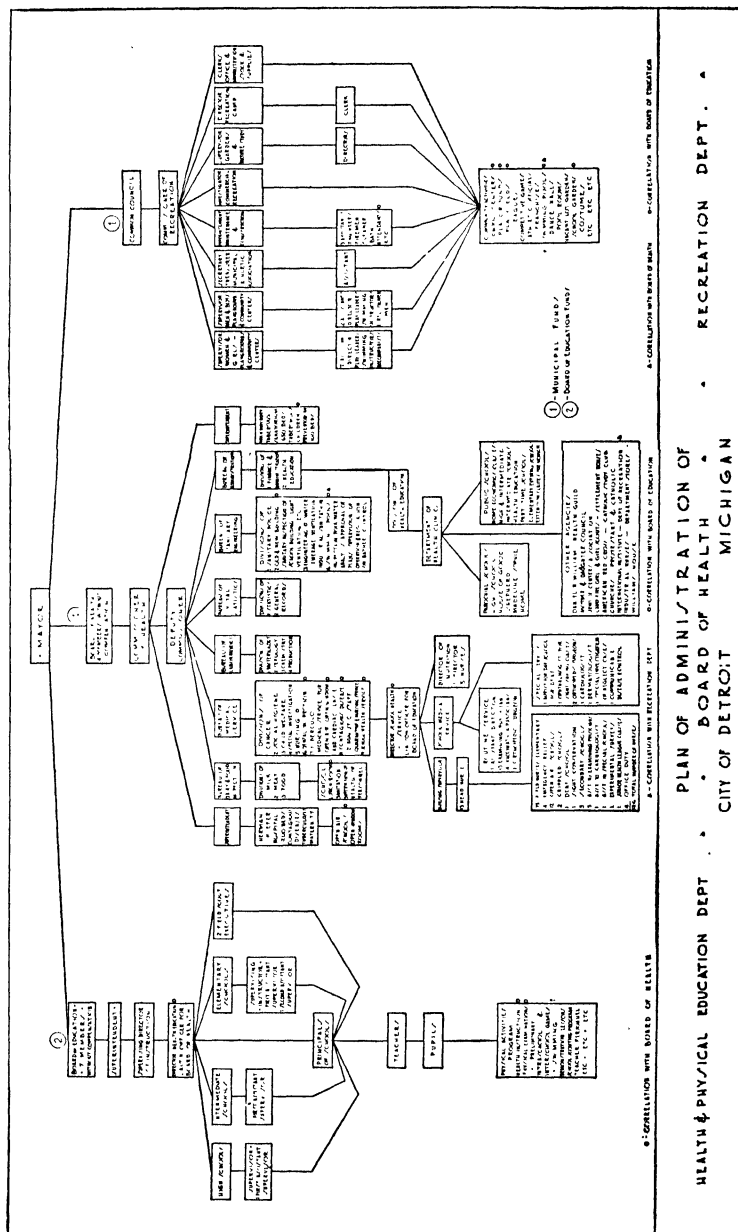
Dentists—part-time: one.

Oral hygienists—full-time: four with New York State registration.

Special class teachers

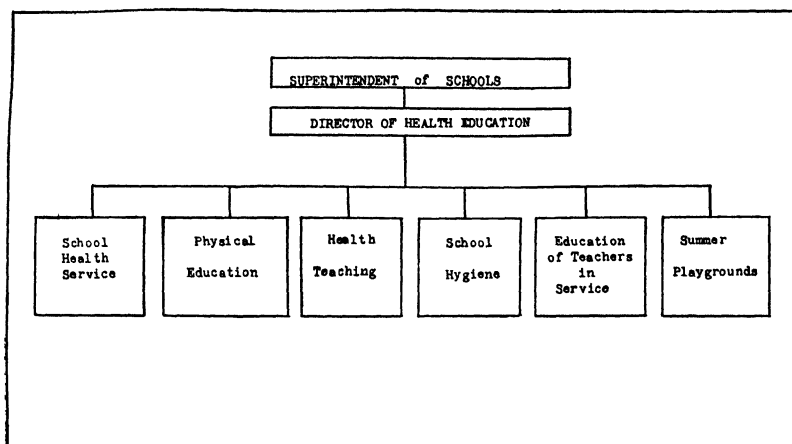
Crippled Children: principal and 6 teachers.

¹⁹ Daniel J. Kelly and Effie F. Knowlton, *A Practicable School Health Program*, School Health Bureau, Metropolitan Life Insurance Co., Monograph No. 1, 1930.



Courtesy of V. S. Blanchard, C. E. Brewer, Don Gudakunst.

Organization in Detroit Showing the Inter-Relationship of the Health and Physical Education Department, the Board of Education and the City Recreation Department



Courtesy of Daniel J. Kelley.

Organization of Health Education in Binghamton, New York

Open Air: teachers-in-charge, 2; 3 assistants.

Mentally subnormal: principal (psychologist) and 12 teachers.

Sight Saving: teacher-in-charge, 1, and 1 assistant.

Lip-reading teachers for deaf (projected for 1931).

Physical Education

Supervisors, 3; physical instructors, 12 in junior and senior high schools.

Health Teaching

Supervisors, 2; special teachers of hygiene in junior high grades, 8.

School Hygiene

(Coöperation of special health and regular school staffs).

Education of Teachers in Service

(Assignments from special health staff).

Summer Playgrounds

(Supervisors drawn from special health staff and leaders chiefly from teaching staff).

SCHOOL HEALTH PROGRAM AND SCHOOL HEALTH STAFF

ADMINISTRATION	{ Director of school health program Secretarial assistant Clerical assistant
SCHOOL HEALTH SERVICE	MEDICAL AND DENTAL STAFF
<i>Medical Service</i>	<i>Medical</i>
For pupils—kindergarten through senior high — health examinations; follow-up; immunizations	Physicians—part-time. Supervisor of school health service (chief school physician).

(smallpox and diphtheria);
clinics for indigent children.

For teachers—health examination;
follow - up; vaccination against
smallpox.

For custodians and all other school
employees—health examinations
and vaccination against small-
pox.

Dental Service

For pupils—prophylaxis; clinics for
indigent children.

Disease Prevention

Inspections.

Exclusions.

Instruction.

Health Supervision of Special Classes

Crippled children's

Modified school program.

Special education.

Special health supervision.

Transportation to and from school.

Open air

Modified school program.

Special health supervision.

Transportation for special cases.

Mentally subnormals'

(1 school plus 7 centers).

Special education.

Special mental health supervi-
sion.

Four assistant school physicians
(one is a psychiatrist; another
is a part-time physician and a
part-time health counselor for
high schools).

One eye, ear, nose and throat
specialist.

One orthopedic specialist.

Nurses—full-time.

Ten registered, with State cer-
tification.

Dental

One dentist—part-time.

Four licensed hygienists — full-
time.

Physicians and Dentists

Nurses and hygienists.

Hygiene supervisors.

Principals.

Teachers.

Custodians.

Special Health and Special Class Staffs

Special health and crippled chil-
dren's school staff.

Orthopedic specialist.

Physiotherapist (nurse).

Principal of crippled children's
school.

Special teachers.

Hygiene and nutrition supervisors.

Physical specialists

Chauffeur-custodians.

Special health and open air school
staffs

Chief school physician.

Nurse.

Teachers-in-charge.

Specially trained assistants.

Hygiene and nutrition specialist.

Special health and special school
staffs

Psychiatrist.

Psychologist.

Nurse—social worker.

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Transportation for special cases.	Principal of school — psychologist.
	Special teachers.
	Chauffeur-custodian.
Sight saving	Special health and sight saving class
Special education.	staffs
Special health supervision.	Ophthalmologist.
	Nurse.
	Teacher-in-charge.
	Assistant.
Deaf groups	Special health and regular school
Instruction in lip-reading — not	staffs
in special classes (projected for	Otologist.
1931).	Nurse.
	Specially trained teachers of lip-
	reading for groups of deaf in
	all schools (projected for
	1931)
<i>Inspection of Sanitation of School</i>	<i>Special Health, Property Service</i>
<i>Plants</i>	<i>and Regular School Staffs</i>
	Physicians and nurse assistants.
	Superintendents of buildings and
	assistants.
	Principals.
	Janitorial staff.
PHYSICAL EDUCATION	PHYSICAL EDUCATION STAFF
For pupils of	For pupils
<i>Elementary schools</i>	<i>Elementary schools</i>
Required program.	Supervisor of physical education for
Extracurricular activities—elective.	girls—primary grades and girls'
Corrective exercises.	recreation.
	Supervisor of physical education for
	boys—boys' recreation.
	Classroom teachers.
	<i>Junior high schools</i>
<i>Junior high schools</i>	Supervisor of physical education for
Required program providing for	girls.
choices of activities; elective, self-	Supervisor of physical education for
directed activities for superior	boys.
groups; leaders' clubs; player-	Special instructors for girls.
control in athletic games.	Special instructors for boys.
Extracurricular activities—elective.	Classroom teachers.
Corrective exercises.	Pupil leaders.
	<i>Senior high school</i>
<i>Senior high school</i>	Head of department of physical
Required program providing for	education.
choices of activities; elective, self-	

directed activities for superior group; leaders' clubs; player-control in athletic games.
Extracurricular activities—elective.
Corrective exercises.

For teachers — recreational activities

HEALTH TEACHING

Personal health in its physical, mental, emotional and social aspects

Community health

Supervised teaching of hygiene with special emphasis upon nutrition —progressive course (loose-leaf) from kindergarten through junior high school; an integrated health curriculum and supervision of instruction in senior high school is projected for September, 1930.

Health teaching through specific and basic subjects in senior high school — physical education, home economics, natural and social sciences, drawing, English, penmanship, mathematics, public speaking, dramatics, music, manual training, etc.

Individual health teaching by medical and dental staff—all grades through senior high school.

Incidental health teaching in all grades as the situation arises.

Influence of the teacher's healthy personality.

Extracurricular activities.

Case studies of behavior problems, and of the mentally

Instructors of physical education for girls.

Instructors of physical education for boys.

Part - time coach — instructor in another department.

Classroom teachers.

Pupil leaders.

Recreational Groups

Physical specialists.

SPECIAL HEALTH AND SCHOOL STAFFS

Hygiene supervisors with special training in nutrition

Classroom teachers.

Special teachers of hygiene in junior high schools.

Health counselor and instructor in hygiene in senior high school projected for September, 1930 —physician (woman) acting as chairman of health committee.

Teachers of practically all subjects.

Doctors, dentists, nurses, oral hygienists.

All teachers of all subjects and all administrators.

The healthy, "wholesome" teacher.

Club leaders and teachers of physical education, the sciences, music, dramatics, public speaking, etc.

Neuro-psychiatrist, psychologist, physician, nurse, supervisor of

abnormal — special health examinations, social histories, psychiatric examinations, recommendations, follow-up, adjustments.

SCHOOL HYGIENE

Hygiene of Instruction and of School Environment

Influence of the teacher with a health "consciousness."

Arrangement of school program, program adjustments, etc.

Rest rooms.

Seating—adjustments.

Lighting.

Air conditions, etc.

Janitorial service — cleanliness of buildings, etc.

Sanitary equipment, hand-washing facilities, etc.

EDUCATION OF TEACHERS IN SERVICE

Supervision.

Class visitation.

Demonstration teaching.

Individual conferences.

Teachers' meetings—group conferences.

Special instruction by supervisors through evening school classes

College extension courses

Special lecture courses.

SUMMER PLAYGROUNDS

Handicraft.

Sports, dancing, etc.

Nature clubs, etc.

citizenship, administrators, teachers.

SPECIAL HEALTH, PROPERTY SERVICE AND SCHOOL STAFFS

Principals, deans and teachers.

Supervisors of hygiene and physical education.

Physicians and nurses.

Superintendent of buildings.

Janitorial staff.

SPECIAL HEALTH STAFF; SCHOOL STAFF; COÖPERATING GROUPS

Director (administration of the program)

All specialists.

Principals.

Teachers.

Hygiene and nutrition supervisors
Supervisors of physical education.

Director of adult education

State Department of education.

Coöperating organizations.

SPECIAL HEALTH AND PLAYGROUND STAFFS

Administrative director.

Director of playgrounds.

Supervisor of handicraft.

Supervisor of physical activities.

Leader of nature clubs.

Specially assigned play leaders.

FACTS ABOUT THE CITY OF BINGHAMTON ²⁰

Situation—Southern New York at junction of Susquehanna and Chenango rivers.

Population—Nearly 80,000 (15,000 of these attend public schools).

An important transportation center by virtue of its location in a rich dairying and truck gardening section.

Manufactures—Clothing, shoes, furniture, motor trucks, automobile accessories, kitchen utensils, valves, washing machines, candy and cigars.

Board of Education consists of five members, appointed by the mayor to serve without pay for a period of five years.

Schools—Registration—17,500 (including parochial schools). Twenty-one public school buildings for twenty-three school units.

Fourteen elementary; two junior high; one senior high; one continuation (part-time); five special.

Equipment of school buildings—

Playrooms and gymnasiums in each—two gymnasiums in each of the two new high schools.

Open air school units in two buildings.

Specially equipped rooms for school health service in each.

Playgrounds for use of each school.

12. *Kitchener, Canada.*

The organization in Kitchener is an excellent example of tying up the physical education and playground activities into one comprehensive plan. This makes possible a service to the community upon a year-round basis. It functions under a joint executive employed by the board of education and the playground association.

INCREASE IN FACILITIES IN MASSACHUSETTS *

	<i>High Schools</i>		<i>Junior High Schools</i>		<i>Elementary</i>	
	1922	1927	1922	1927	1922	1927
Gymnasium	47	101	24	73	25	63
Auditoriums	37	36	33	34	48	106
Basements	32	15	19	36	81	144
Playgrounds	61	97	52	97	225	778
Athletic fields	91	133	38	66	61	77

* Received from Carl L. Schrader, State Supervisor of Physical Education, Massachusetts.

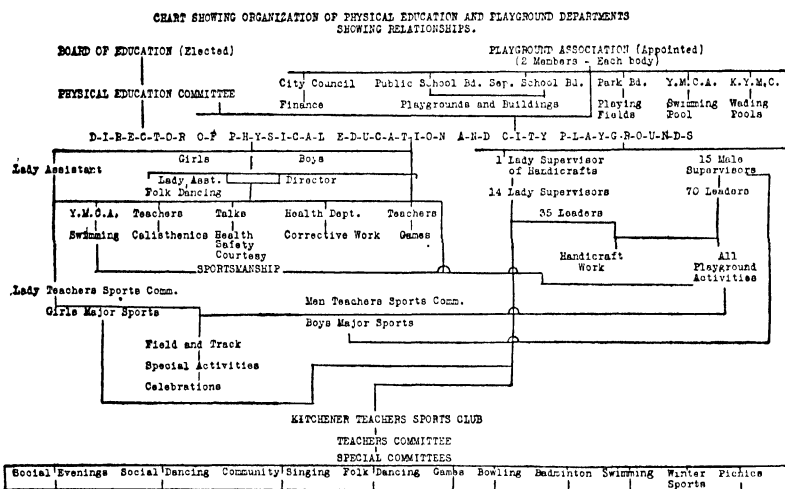
13. *Morley, Michigan.*

The Morley school is an excellent example of how physical education and health may be organized in a small consolidated

²⁰ These facts are given to indicate that Binghamton is no exceptional city. What it has done other cities can do.

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school. Morley is a village of three hundred and fifty people. The entire school district comprises thirty-one square miles with a population of twelve hundred. The school is organized on the Four-Four-Four plan. The activities above the fifth grade are departmentalized. On January, 1931, there were enrolled in the school three hundred and fifty-nine pupils, about three hundred of



Courtesy of H. Ballantyne.

Organization of Physical Education, Health and Playgrounds in Kitchener, Canada

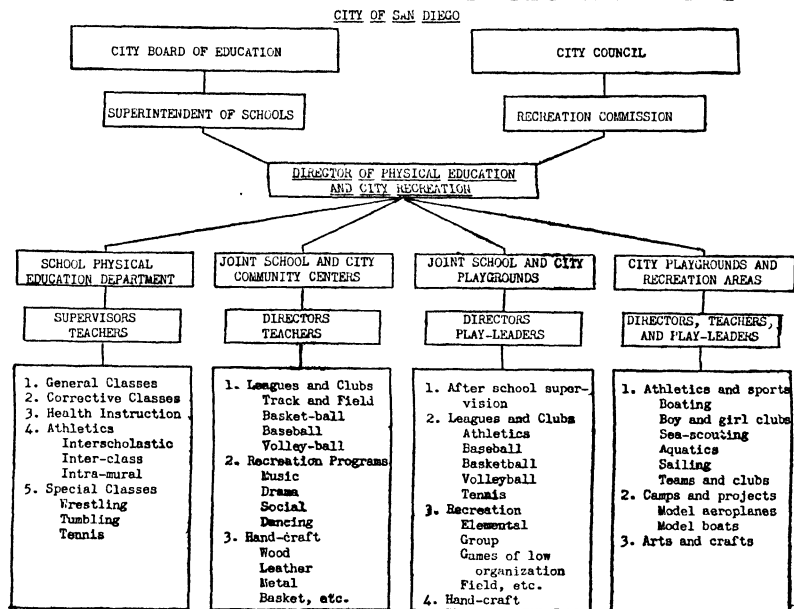
which are transported to and from school in ten large buses. The high school is on the credited list of the University of Michigan. It offers regular college preparatory courses including science, home economics and agriculture. The school receives state aid in agriculture and federal aid by the Smith-Hughes act. Citizenship, health and vocational training are stressed. In so doing the fundamentals in the grades have not been neglected. By organizing a broad pupil participation program in community civics, general science, agriculture and other allied fields, excellent avocation and vocational guidance has been given to pupils in the seventh and eighth grades. The physical education and health program has been promoted in the following ways:

a. Periodical Health Examinations. A very fine plan of periodical examinations has been worked out in coöperation with

a medical expert and a registered nurse. Any defects discovered are followed-up. The parents of the children have been sufficiently interested to actively coöperate in the health and citizenship plans of the school. Supplementing these examinations children are inspected every six weeks relative to possible nutrition deficiencies.

b. Physical Education Instructional Period. All the children in the school are enrolled in an instructional period during the

CO-OPERATIVE RELATIONSHIP OF CITY AND SCHOOL RECREATION AND PHYSICAL EDUCATION DEPARTMENTS



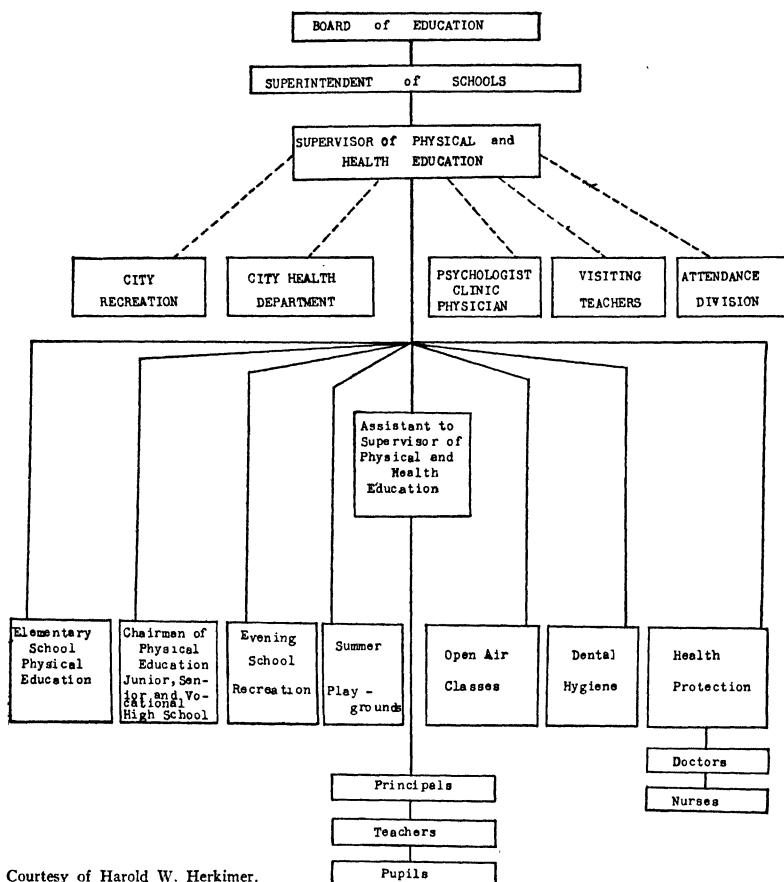
Courtesy W. A. Kearns.

Coöperation Plan of Board of Education and City Council, San Diego, California

school day, thus guaranteeing universal participation in the physical education activities. Description of the plan is on page 76.

c. Laboratory Play Periods. In grades one to four inclusive four periods per day are scheduled. In grades eight to twelve inclusive activities are scheduled from 8:30 to 9:00 A.M., and from 1:50 to 3:10 P.M.

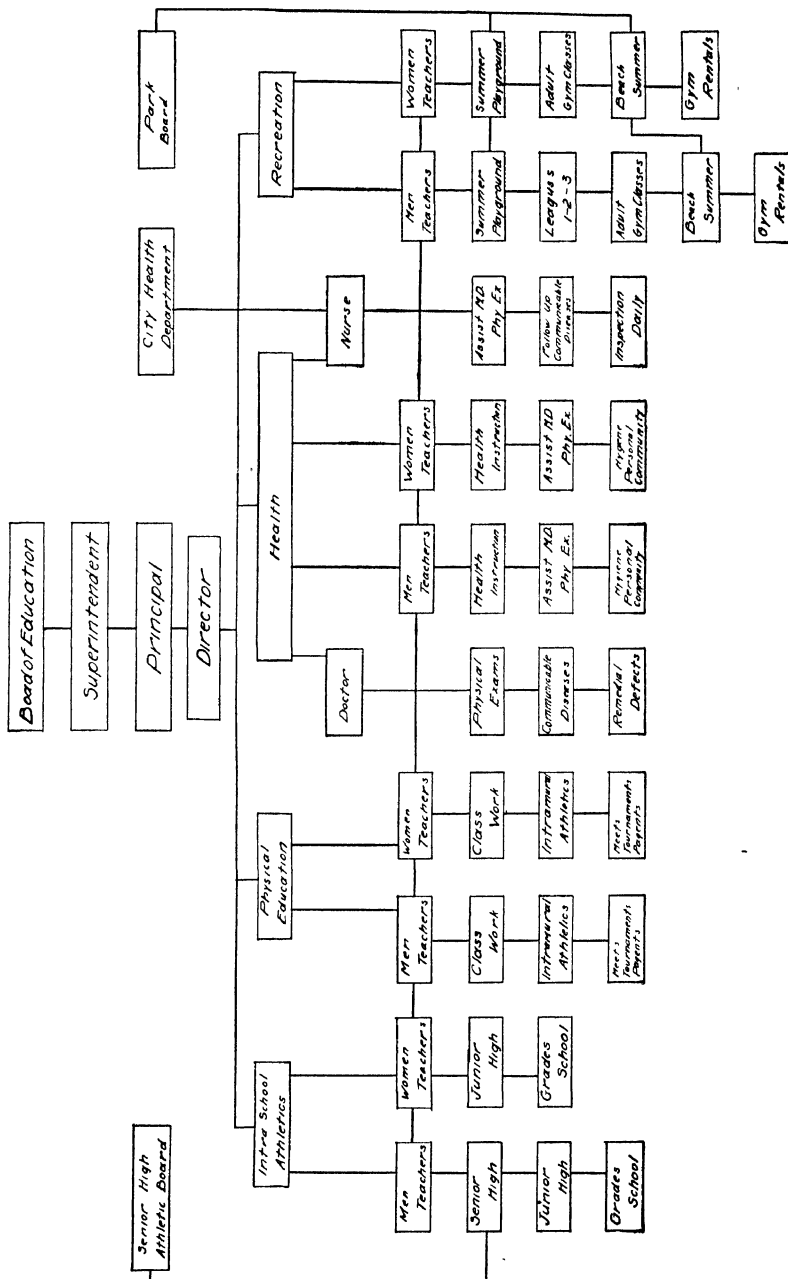
d. Basement Periods. Special periods are scheduled for children to be in the basement where they may go to the lavatories.



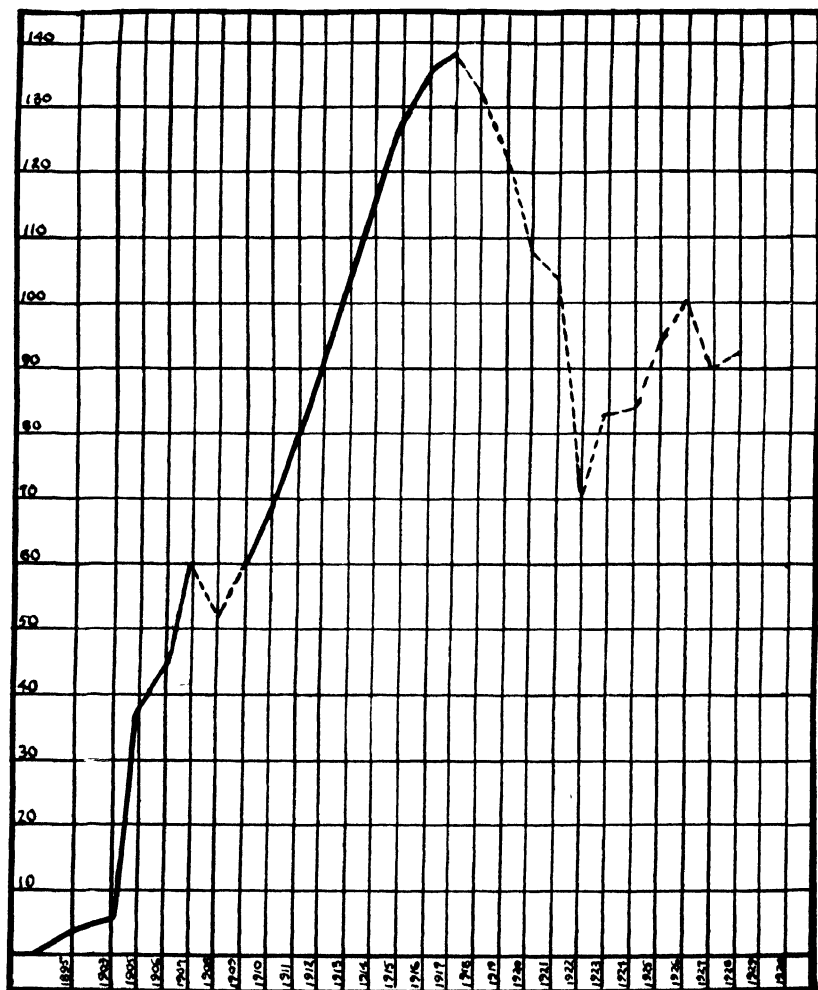
Organization of Physical and Health Education in Niagara Falls, New York

e. Lunch Periods. Special lunch periods are provided in the mid-morning and mid-afternoon for grades one to four inclusive because the children have to leave early in the morning and do not return home until late in the afternoon.

f. Play, Basement, Lunch Schedule. The play, basement, lunch schedule is so worked out that different grades are seldom if ever in the halls, playgrounds or gymnasium at the same time. These periods are all supervised. Lunches are eaten in the rooms. The hot lunches are prepared by the home economics department



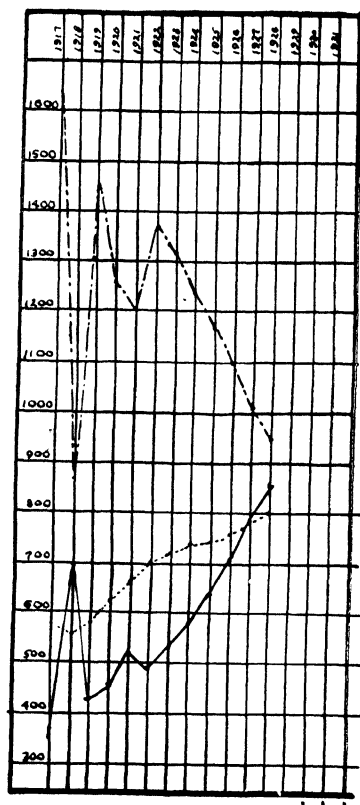
Organization of the Department of Physical Education and Health in Ann Arbor, Michigan



Growth of Summer Playgrounds Movement in Philadelphia

and cost about three cents per child per day. The Morley Consolidated School indicates the possibilities of the organization of a small school from the standpoint of major objectives.

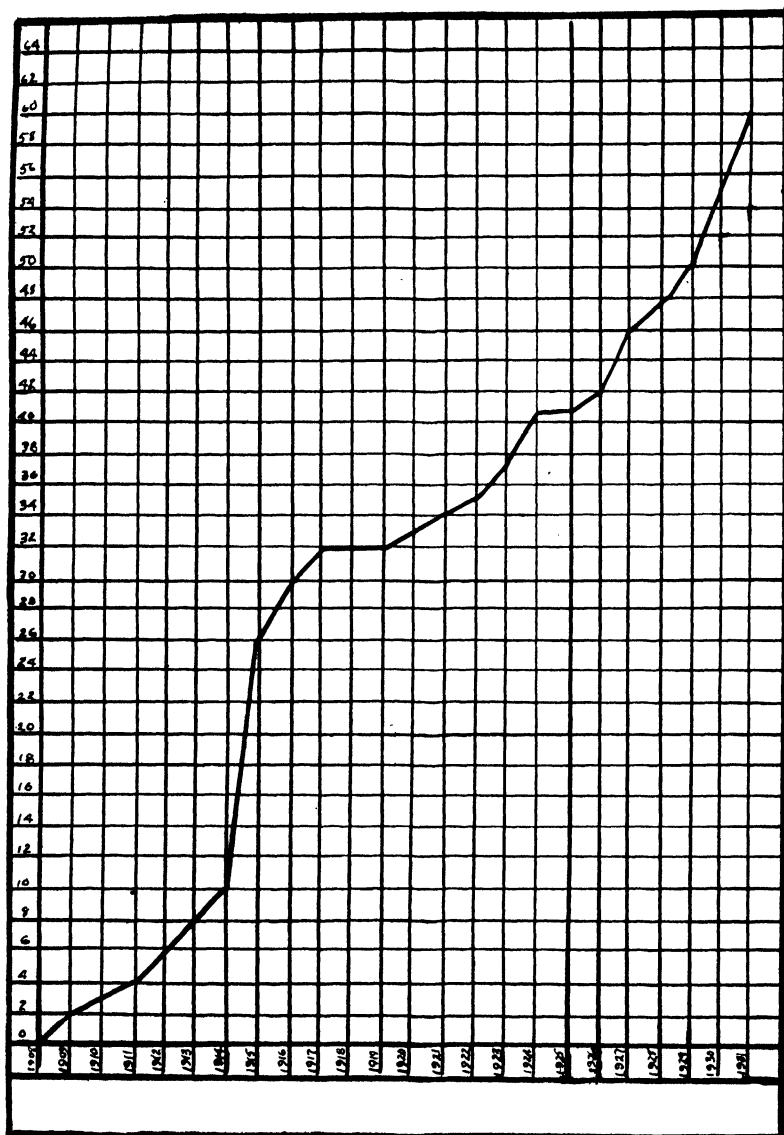
D. Platoon Schools. Because of certain distinctive features in organization which often eliminate the line of demarcation between elementary and junior and senior high schools, and between junior and senior high schools, this type of school is known as the platoon



Growth of Physical Education in New York, Excluding New York City: full line—full time physical education teachers; dotted line—increase in daily average in attendance in terms of thousands; broken line—ratio of total pupils to total teachers in physical education.

system, the duplicate system, the Gary plan or the work-study-play school. It represents one of the movements in line with progressive education to break the lock-step of the traditional school where children are housed under artificial conditions and education is looked upon as a pouring-in process.²¹ This idea became well rooted in Gary, Indiana, about 1907 under the leadership of William A. Wirt whose keen insight into the difficulties of rearing chil-

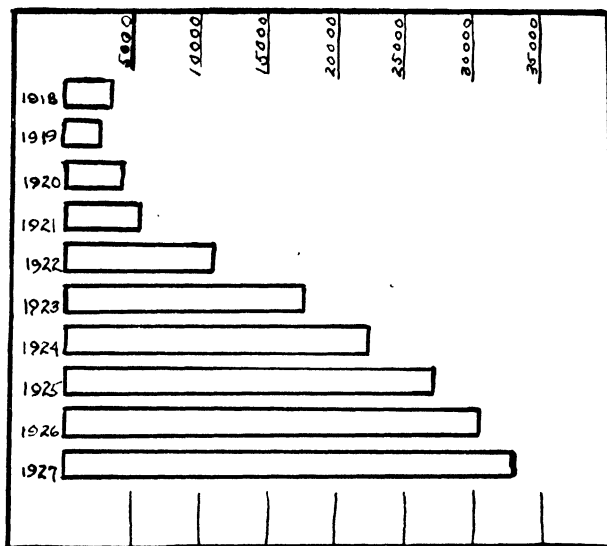
²¹ Alice Barrows, "Modern Cities and Children," *The Platoon School*, National Association for the Study of the Platoon or Work-study-play School Organization, Washington, D. C., June-July-August, 1929, p. 79.



Growth of Year-round School Playgrounds in Oakland, California

dren in cities and whose philosophy of life have had a great deal to do with the forward movement of this progressive school.^{22, 23} While many cities over the country have schools organized upon this basis the progressive work of the city of Detroit stands out.²⁴

The philosophy underlying the work-study-play school is essentially that which is set forth in this treatise. It recognizes that education comes as a result of doing, and that educational outcomes



Growth in Number of Children Participating in Badge Test in Maryland

are measured in terms of results or, in other words, changes in conduct.^{25, 26}

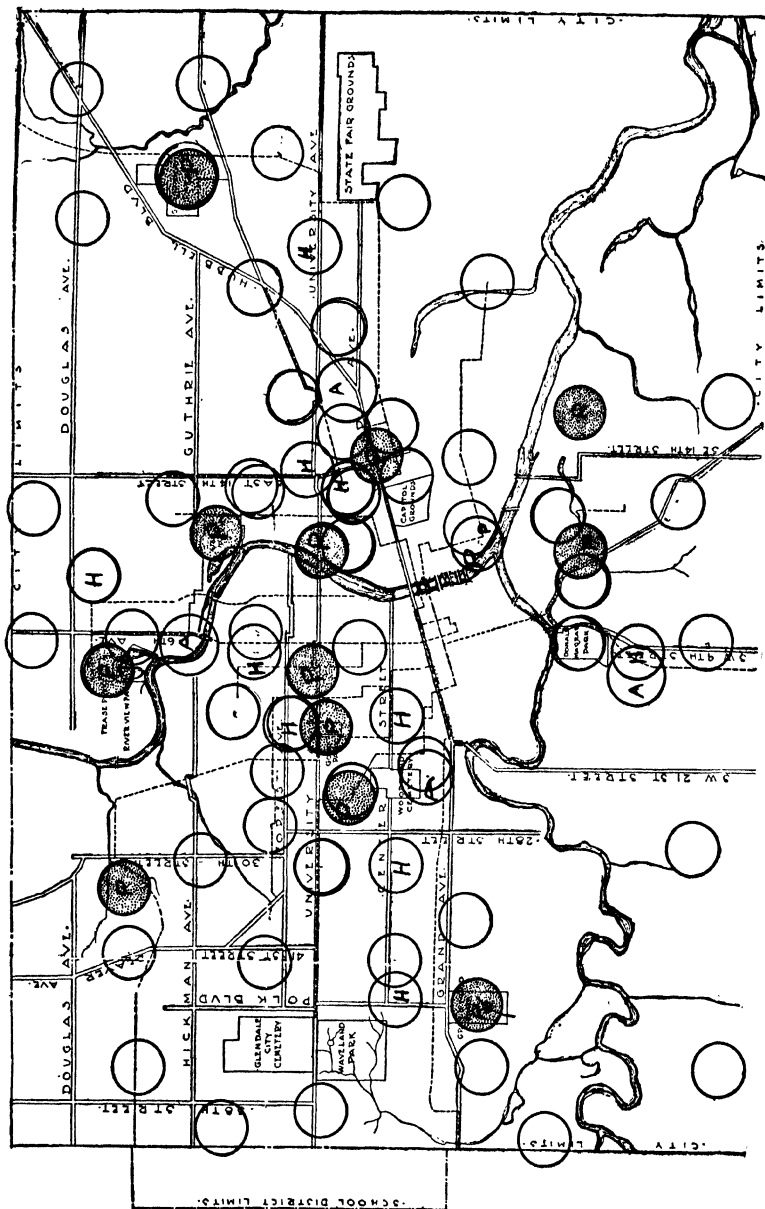
²² William A. Wirt, "Making the City a Fit Place for the Rearing of Children," *The Platoon School*, National Association for the Study of the Platoon or Work-study-play School Organization, Washington, D. C., December-January-February, 1929-1930, p. 152.

²³ William H. Holmes, "Developing Personality," *The Platoon School*, National Association for the Study of the Platoon or Work-study-play School Organization, Washington, D. C., December-January-February, 1929-1930, p. 159.

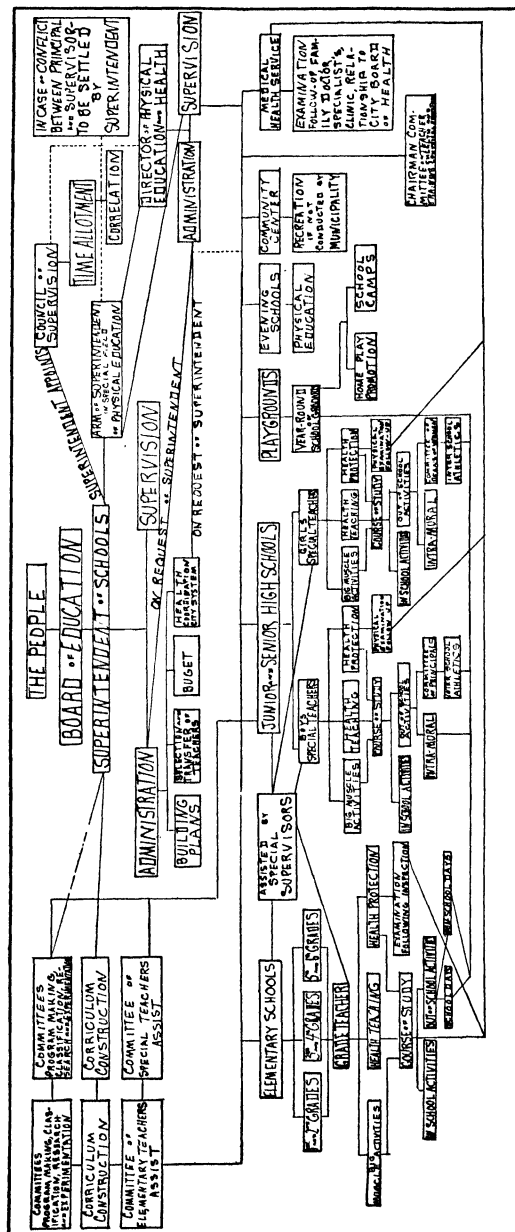
²⁴ Charles L. Spain, *The Platoon School*, The Macmillan Co., New York, 1929.

²⁵ Goodwin Watson, "What Should College Students Learn?", *Progressive Education*, Vol. VII, No. 7, The Progressive Education Association, Washington, D. C., November, 1930, p. 319.

²⁶ Harold A. Ferguson, "Progressive Tendencies in a Large Public High School," *Progressive Education*, Vol. VII, No. 5, The Progressive Education Association, Washington, D. C., June, 1930, p. 231.



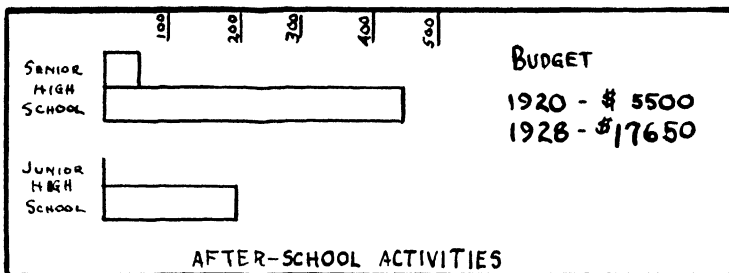
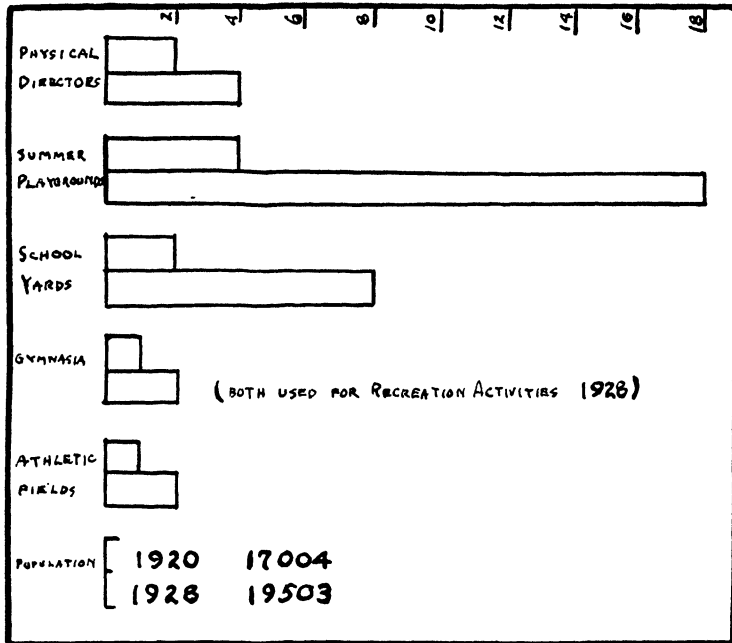
**Showing Distribution of Park—Shaded—and School—Unshaded—Playgrounds in Des Moines, Iowa—
Note the Unequal Distribution of Municipal Playgrounds**



Recommended Organisation of City Department of Physical Education and Health

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The school is organized into two divisions or platoons. These groups alternate between the home rooms and the special rooms. The home rooms provide such subjects as arithmetic, history, civics,



Growth in Facilities and After-School Athletic Participation in Ithaca, New York

physiology, languages, reading, spelling, and writing, with a certain time allotment for study. The special rooms provide classes in music, science, literature, manual arts, art and science, domestic arts, auditorium activities, library, physical education, and play. Quite often the physical education and play periods are distinct,

and in some instances a section in social sciences is added.

The question has often been raised as to whether or not the constant changing from one activity to another does not have detrimental effects on the child's health. It has been argued that the plan of having the child adjust himself to more than one teacher also is detrimental. There does not appear to be any evidence of this, however. Dr. A. M. Kerr, medical supervisor of the public schools in Pittsburgh, Pennsylvania, after having had wide experience with both the platoon and the traditional type of schools, believes the platoon is a superior type of organization from the standpoint of the child's health. He summarizes his arguments for this as follows:²⁷

On the side of physical health, epidemics of contagious diseases can be as easily prevented or controlled in the platoon as in the traditional school.

The changing from one seat to another produces no demonstrable evil effect upon the pupils.

The longer school day has produced no harmful results which our school doctors can find and any evils which the increase in number of minutes attending school might cause are more than balanced by the frequent compulsory breaks in mental strain and complete change of mental set incident to progress from room to room.

The well located, well equipped, and well conducted gymnasium is a vital health asset, and the fact that health instruction is in the hands of the teachers of physical education is another health asset.

On the mental and nervous side, the absence of opportunity for so-called mothering is commendable.

The frequent change of teachers tends to develop every side of the child's individuality, and assures him of an understanding and comprehension beyond the ability of any one teacher.

The freedom of movement and of expression are not productive of mental strain but are the antidote for it.

The happiness of the child in his free expression is a high health asset.

In general, in spite of weaknesses incident to every man-conceived organization, the work-study-play plan is as great a stride forward in its health aspects as it is in its academic values.

Additional phases of the platoon organization will be discussed on pages 253 and 281.

PROBLEMS

1. You have been asked to serve on a White House Committee concerning the promotion of a bill before Congress making physical education

²⁷ A. M. Kerr, "The Platoon School from the Health Standpoint," *The Platoon School*, National Association for the Study of the Platoon or Work-study-play School Organization, Washington, D. C., March-April May, 1929, p. 11.

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compulsory in the schools of the nation. It is proposed to subsidize local communities to the extent of 25 per cent of the cost of operation. What would be your advice relative to such a bill?

2. The state superintendent of schools has asked you to confer with him regarding the establishment of a bureau of playgrounds under the state board of education. It is assumed that a strong organizer will be placed in this position for the promotion of playground activities throughout the schools of the state. Some have contended that this organization should be left entirely to the local communities. What would you say?

3. You are the director of physical education of the high schools in a city of 80,000. There is in the city a well organized park department but it has practically no facilities for school-age children. A committee of citizens is urging the formation of a playground commission and the appointment of a superintendent of playgrounds. The mayor of the city, who lives next door to you, has asked your advice on the subject. What would you tell him?

4. You are the supervisor in a school which has a strong department of physical education and health. The director of the department has had a thorough background of educational procedure. The head of the medical division of this department is a well trained local physician, serving part-time. The latter has come to you and protested against working under a layman. What would you say to him?

PRINCIPLES

1. In the figure on page 195 will be noted an organization set-up as suggested by the author. There is no one city in the country where activities are being carried on according to this plan. However, each activity suggested is actually being carried on in a number of cities. This plan aims to bring together the best practices which are not merely theoretical but are actually in successful operation.

2. The name of the department should be Department of Physical Education and Health. This indicates the uniting of two functions in one department, namely: the conducting of physical education activities, which is a process and one of the activity arms of the public schools, and the task of coördinating health functions. Physical education represents an activity; health, an objective.

3. If the head of the department of physical education is not qualified to act in a health coördinating capacity, then the two functions should not be tied up in one department. In what follows it will be assumed that the director of physical education is trained in accordance with the suggestions set forth on page five (5), and hence is qualified to act in the capacity of health coördinator.

4. The title of the head of the department should be Director of Physical Education and Health. If this individual acts also in the capacity of superintendent of recreation that should be added to his title.

5. The director of the department and the supervisory staff should func-

tion on a year-round basis. A vacation month should be arranged with the superintendent of schools.

6. The director should act in a supervisory capacity under the superintendent of schools except where definitely requested by the superintendent to take over administrative tasks.

7. The director and supervisory staff should stand in a position of adviser to the principal (figure on page 404). If the principal does not accept the advice of the staff he assumes the full responsibility for the conduct of activities within his own school and thus is accountable directly to the superintendent. The director and staff stands in the capacity of adviser to the room teacher and all specialists in the department in connection with the program of physical education activities and the teaching of health and health protection. They also become responsible for any revision of the physical education and health curriculum and for research and experimentation. The director becomes responsible for the following: the coördination of all inter-school, intramural, and playground activities; all health teaching and, in coöperation with the medical department of the school and the board of health, health protection; and the physical education activities in the evening schools. The director should assist in a coöperative capacity in promoting home play, school camps and the health program for pre-school children, and in conducting evening recreation centers under the jurisdiction of the school. He should act in an advisory capacity in teacher training as it relates to physical education and health. The director should sit on the council of supervision or whatever body is appointed by the superintendent to coördinate all activities, and should hold himself available for special assignments made by the superintendent.

8. The federal government is interested in and probably has an obligation in connection with public education. This is obvious because individuals are citizens not only of the states but of the federal government.

9. If aid is given the states it should not be given in such a manner that its acceptance carries with it a dictation of policy. It is rather generally agreed that the best educational procedure should be to allow the states to meet local conditions. There is some danger under federal control of education for the schools to be used in a manner similar to those in certain countries previous to the World War.

10. Any move upon the part of the federal government in connection with the financial aids for education should be considered experimental.

11. In the absence of granting financial aid the federal government still has a large responsibility in aiding research and promotion.

12. The office of education of the federal government of the department of the interior can render an important service to the field of physical education and health by enlarging its scope of research and investigation. This office should more and more be a clearing house for official information relative to the status of physical and health education.

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CHAPTER VII

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CHAPTER VIII

PHYSICAL EDUCATION PLANT

Space must be provided in which to conduct an instructional and a laboratory program of physical education and to administer a coördinating department of health. How much space, how it should be allocated will depend upon the size of the school, its geographical location, the program to be administered, and the building funds available.

The solution of the problem required coöperation between the architect, school administrator, and the specialist in physical education and health. The school administrators claim that "School house planning has been in incompetent hands to an alarming extent."¹ The architects on the other hand say "Much of the blame for an inefficient plan and an ignoble façade must be borne by those in the place of authority,"² namely, the school administrators. The third member of the triumvirate, specialists in physical education and health, have seldom been consulted and, when consulted, their advice has been rarely taken.

All three are responsible for the errors. The architect has too often been interested in a beautiful exterior, a monument to his firm, and incidentally, to his own name. He does not hesitate to cut out essentials of the building in the form of lockers, showers, and dressing room space in order to provide a beautiful gymnasium floor and monumental pillars at the entrance.

The school administrator, in the name of economy, not being able to cut down floor space, has been willing to eliminate the most vital essentials of the plant which the public seldom sees—the lockers, showers, dressing rooms and administrative quarters.

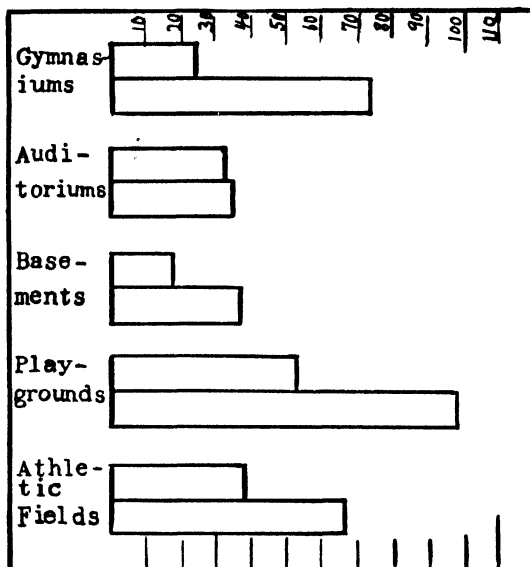
The specialist in physical education and health on the other hand has not visualized the administration of the program sufficiently to be a competent adviser to the school administrator and the architect. All three too often see the few specializing in school athletics and remain blind to the needs of the many.

At no point in the administration of a physical education pro-

¹ *High School Buildings and Grounds*, Bulletin No. 23, Department of the Interior, Bureau of Education, U. S. Government Printing Office, Washington, D. C., 1922, p. 7.

² John Irwin Bright, "The School and Its Architect," *The American School and University*, American School Publishing Corporation, New York, 1928-1929, p. 15.

gram must such great care be taken as in the planning of the physical education plant. At best it is very expensive (pages 213 and 221). An indoor plant of really less than minimum size—for example, a gymnasium fifty by sixty feet—because of its double height and supporting service rooms occupies the space of twelve standard class rooms. If these dimensions are doubled in order to provide separate plants for boys and girls it means devoting twenty-four class rooms in the building to physical education and health. If the gymnasium floor is of the size usually required, approximately sixty by ninety feet, twenty-four standard class

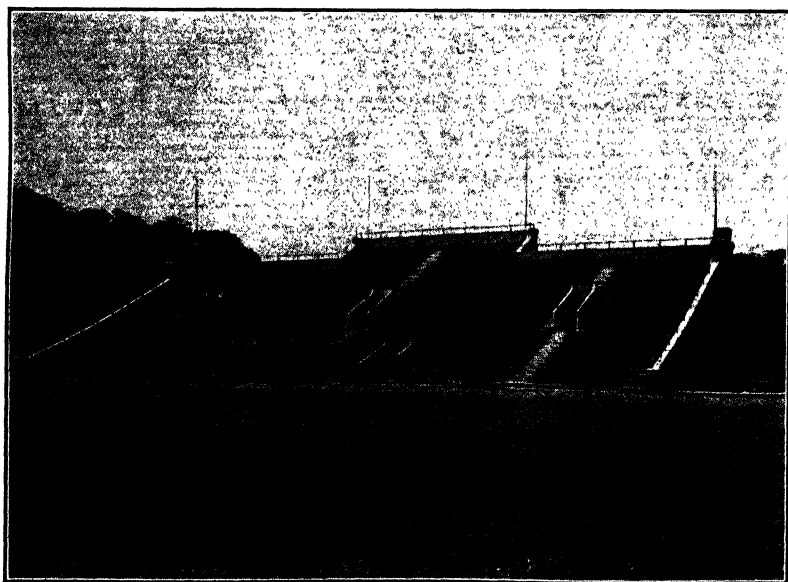
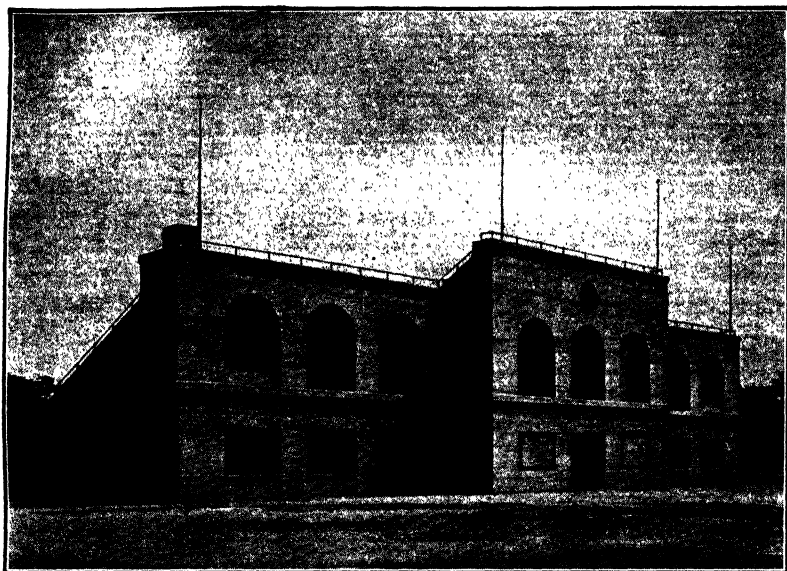


Growth of Facilities in Junior High Schools in Massachusetts, 1922-1927

rooms will be utilized, and if to this is added a swimming pool it will make the physical education plant approximately twenty-eight class rooms (page 213).

This extensive plant is due partly to the fact that the main room of the gymnasium must be double the height of the usual class room and that the same amount of floor space that is devoted to the gymnasium must be devoted to lockers, showers, dressing rooms, and administrative offices. This means that care should be taken to arrange the physical education plant from the most economic standpoint.

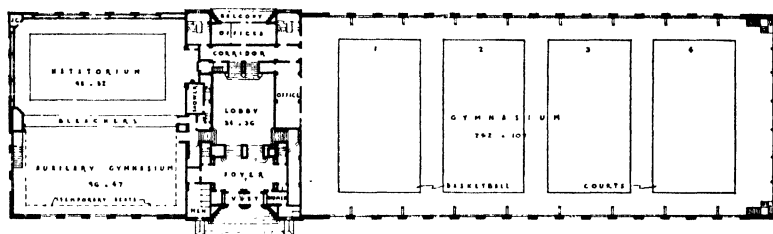
Inasmuch as the minimum size of the plant is set by the re-



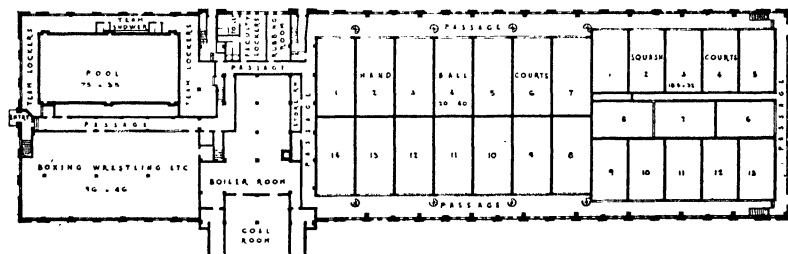
Courtesy of Gavin Hadden.

Front and Rear View of Brookline Grandstand-Field House

quirements of such games as basket ball, base ball and soccer, economy can be gained by the intensive use of the assigned space. The gymnasium plant ought to serve the school not only for the physical education activities but for social events, possibly for banquets, and it should be available to the community at all hours when not utilized by the school; that is, in the evenings and at all times when the school is not in session. It must not be forgotten that the community pays for the school. The people do not present a gift to



FIRST FLOOR PLAN



GROUND FLOOR PLAN

Courtesy of Elmer Mitchell.

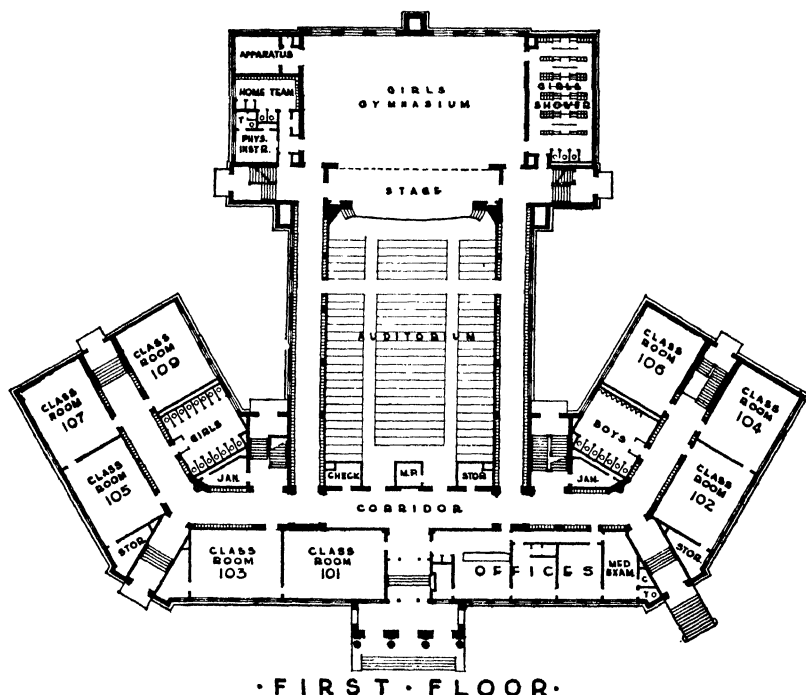
Two Floor Plans of Intramural Athletic Building, University of Michigan

the board of education. Although the taxpayer reaches into one pocket to pay the school tax and in another to pay the municipal tax we must remember that both amounts come from the same pay envelope. Either the public is going to refuse to allow the vast sums of money to be spent on school property when the school is in session less than half the days of the year or they are going to demand the use of the property when it is not actually utilized for school purposes⁸ (maps, pages 66 and 94).

⁸ Eleanor T. Glueck, *Extended Use of School Building*, Bulletin No. 5, Department of the Interior, Bureau of Education, U. S. Government Printing Office, Washington, D. C., 1927.

I. THE NEED OF CAREFUL PLANNING

If this plant is to be used, as it must be in the future, namely, for the physical education program, evening community recreation center, summer playground program, etc., great care must be taken to plan the plant so that this use may be possible. Entrances and



Courtesy of F. L. Wiley.

Girls' Gymnasium Plan, Roxboro Junior High School, Cleveland Heights, Ohio

exits must be so arranged that certain units of the building may be entirely cut off for special use. This is essential for discipline and reducing the cost of supervision. The swimming pool and all service rooms necessary for its operation should be so arranged that they could be cut off from the rest of the school for evening or summer use. This same rule should apply to the indoor gymnasium, the lavatories, special exercise rooms, etc.

TABLE XX
GIRL'S GYMNASIUM AREA ESTIMATE

		Per Cent Number of Square Feet	of Total Area	Auxiliary Rooms	Standard Classroom Units ¹	Avail- able Class- rooms
Instructional (indoor)						
Gymnasium floor 60' x 90' ² . . .	5,400				7	1
Bleacher space (if desired) 15' x 90'	1,350			1	3½	
Special exercise room 15' x 30' . .	450				½	1
Swimming pool 25' x 60'	1,500				2	1
Classroom 25' x 30'	750				1	1
Team room 12' x 20'	240			1	½	
Miscellaneous	1,180					
Service					4	
Basket room 5' x 60'	300			1		
Showers and dressing booths . .	1,320			1		
Lockers	990			1		
Lavatory 10' x 15'	150					
Rest room 10' x 12'	120			1		
Miscellaneous	145					
Administration					1	
Outer office 8' x 10'	80					
Inner office (2) 8' x 10'	160			1		
Storage of Supplies and Towels . .	285			1		
Instructors' Showers and Lockers .	225					
Total	14,645	9.36%		8	19½	4

¹ Standard classroom 25' x 30'.

² Gymnasium must be double height of the classroom.

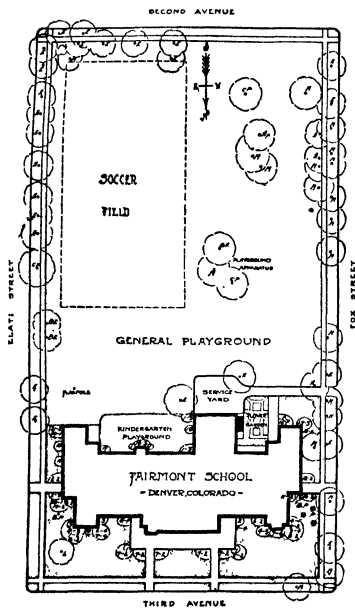
II. WHAT SHALL WE TELL THE ARCHITECT?^{4, 5}

We are confronted with one situation in large cities or in counties or states where a regular staff of consulting architects is employed. It is the responsibility of the physical education specialist to make clear to the architects his needs.

⁴ Murray A. Dalman, "What Shall We Tell the Architect?", *The American School and University*, American School Publishing Corporation, New York, 1930-1931, p. 33.

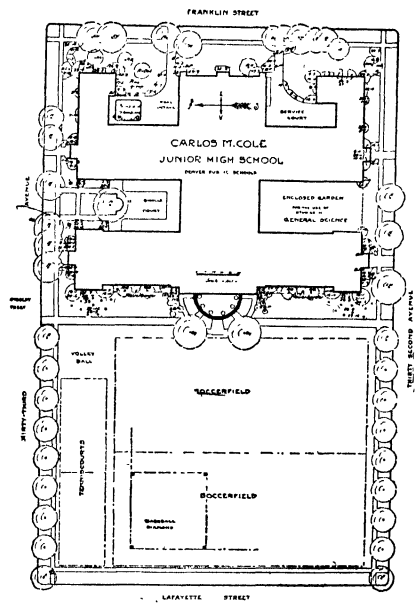
⁵ N. L. Engelhardt and Fred Engelhardt, *Planning School-Building Programs*, Bureau of Publications, Teachers College, Columbia University, New York, 1930, p. 318.

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PLAN OF FAIRMONT School
GROUNDS.

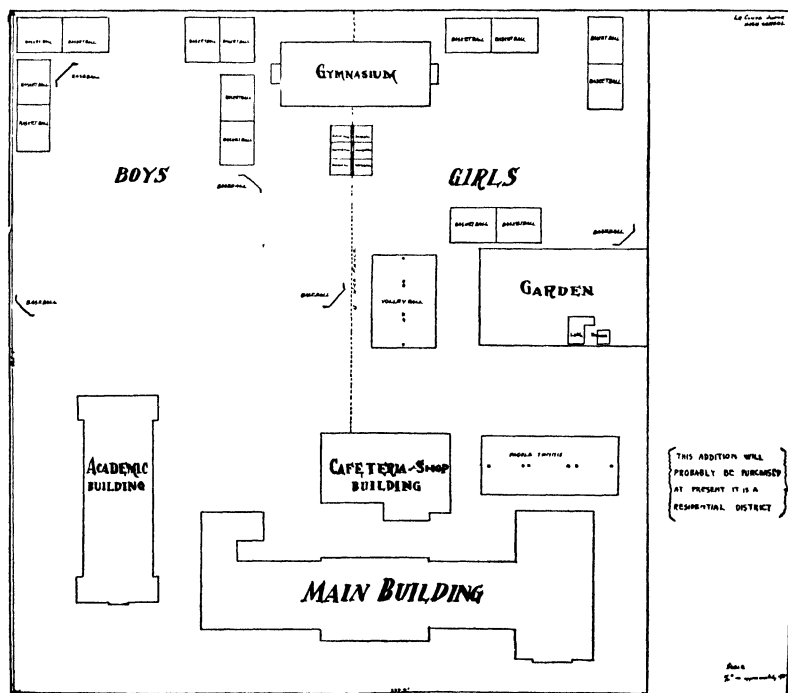
PLAN OF
CARLOS M. COLE Junior High
School GROUNDS



Yard Plan of Two Platoon Schools, Denver, Colorado

A. Information Regarding Service to Be Rendered. We should inform the architect about the maximum service we are attempting to render the school, community center, summer playground, etc.; also the total number of individuals to be served, the peak-load in school hours and the peak-load during out-of-school hours.

We must inform the architect about the types of showers, dressing rooms and lockers, both for girls and for boys, and any special problem about ventilation, drying, laundries, toilets, foot baths, and sound absorption. The architect should also be told the amount of time allowed between classes for dressing and the accommodations to be made for spectators at the swimming pool,



Yard Plan of John Muir Junior High School, Los Angeles, California

the gymnasium, and athletic fields. An explicit plan showing the circulation of students should be worked out in order to plan the entrances and exits. The number and size of instructional units, the number of instructors, dentists, physicians, nurses, etc., to be accommodated; the amount of material which must be stored; rest rooms, libraries, examination rooms, class rooms, etc.; which shall be needed in the program, must also be discussed with him. Careful details should be made of all needs. The responsibility of providing for those needs should then be delegated to the architect in writing and in terms which cannot be misunderstood. If entrances

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TABLE XXI

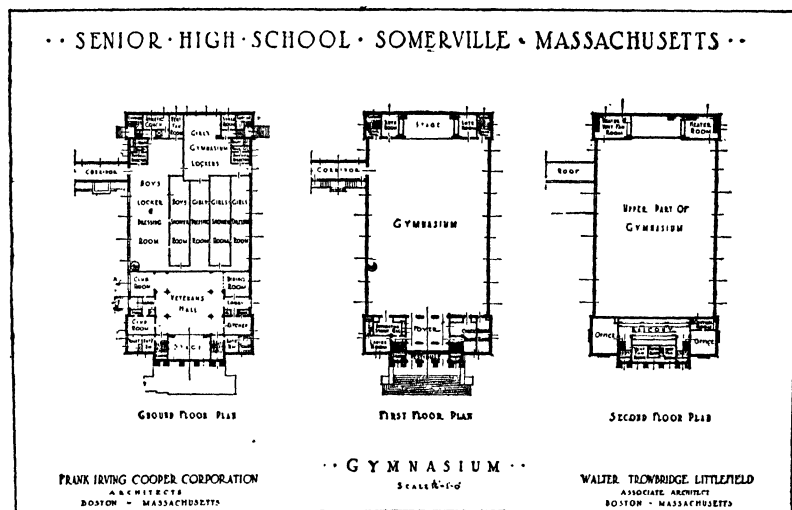
LOCKER AND DRESSING ROOM EVALUATION ¹

Factors to be Considered	Plan I	Plan II	Plan III	Plan IV	Plan V	Superior Plan With Respect to Each Item ²
From the standpoint of economy						
Amount of floor space required						II, III, IV
Initial cost of installation						IV
Repairs and replacements						IV
Cost of attendants....						I, II
From the standpoint of administrative routine						
Locker problem.....						II, III, IV
Safety from theft.....						III, IV
Difficulty of concealing stolen goods.....						III, IV
Sanitation						III, IV, V
Supervision of equipment						IV
Supervision of students						IV
Issue and check on towels						IV
Handling late comers.						I, II, III, IV
Serving athletic teams						I
Serving visiting teams						III, IV
Least amount of janitor service.....						II IV
Least amount of additional help.....						I
Speed of handling crowd						I, II IV
Advantageous use for evening center.....						III, IV
Number of items upon which each is rated as superior.....						
Final choice.....						IV

¹ See page 242 for Plans.² Recommendations by author.

and exits are not properly placed, if sufficient showers and dressing rooms are not provided to accommodate students in the time allowed for dressing, the fault lies with the architect and the administrator—the specialist in physical education and health has done all within his power. Ackerman says: "Only one dogmatic statement is offered. It is futile to attempt to design a structure for a definite purpose prior to the formation of a definite and fully detailed statement covering its intended use."⁶

B. Specific Information with Regard to the Needs of the Department of Physical Education and Health.^{7, 8} This specific in-



Courtesy of Ernest Herman.

High School Gymnasium Plan, Somerville, Massachusetts

formation will be of particular help where a consulting architect is not employed full time by the board of education. It will also be of some value to the supervising architect. No attempts will be made to consider the details regarding this information but some of the important points will be stated.

⁶ Frederick L. Ackerman, "A Gymnasium for Diversified Activities," *The Research Quarterly* of the American Physical Education Association, Vol. I, No. 2, Ann Arbor, Michigan, May, 1930, p. 51.

⁷ *Physical Education Buildings*, Part I, Society of Directors of Physical Education in Colleges, Harry Scott, Rice Institute, Houston, Texas, 1923.

⁸ *Gymnastic Apparatus*, Narragansett Machine Co., Rhode Island, 1928. Catalog F15.

III. ELEMENTS IN A PHYSICAL EDUCATION PLANT

The physical education plant may be said to consist of three units. Funds which are available must be appropriated to the most essential of these.

The three units⁹ in the plant may be designated as follows:

A. Instructional Unit. Here we think of not one unit—the indoor gymnasium—but of all the instructional units in the physical education plant, as the playground, indoor gymnasium, swimming pool, special activity rooms, play rooms, and the standard class-rooms.

B. Service Unit. This will consist of dressing and locker rooms, lavatories and showers. These factors are of particular importance in the junior and senior high schools.

C. Administrative Unit. This consists of offices for the directors of physical education, the doctors, dentists, and nurses; rest rooms, store and equipment rooms, janitor rooms, laundry and drying rooms, etc.

Recently a group of high school principals in a large city recommended that if a saving were to be made it should be in connection with the elimination of the gymnasium floor proper and that no cuts should be made in the number of showers, lockers, dressing rooms, and offices. Inasmuch as the city was located in a mild climate the recommendation was undoubtedly wise.

IV HIGH SCHOOL PHYSICAL EDUCATION PLANT^{10, 11}

The plant for the junior and senior high school will be considered in the light of the three units above mentioned.

A. Instructional Unit.

1. *The Gymnasium Floor.* The gymnasium floor from the standpoint of physical education should be considered as a teaching unit. It must also be considered from the standpoint of uses such as social affairs and evening and summer community recreation. In a mild climate protection is needed from rain and wind.

⁹ *The Research Quarterly* of the American Physical Education Association, Vol. I, No. 2, Ann Arbor, Michigan, May, 1930, p. 41.

¹⁰ Henry Noble MacCracken, "Factors Which Should Guide the Design of Buildings for Physical Education," *The American School and University*, American School Publishing Corporation, New York, 1929-1930, p. 199.

¹¹ J. Meyrick Colley, "Louisville's New System of Junior High School," *American School and University*, American School Publishing Corporation, New York, 1928-1929, p. 78.

It has been found, however, that in such states as California and Alabama,¹² with a mild climate considerable protection is needed.

TABLE XXII
BOYS' GYMNASIUM AREA ESTIMATE

	Number of Square Feet	Per Cent of Total Area	Auxiliary Rooms	Standard Classroom Units ¹	Available Class- rooms
Instructional (indoor)					
Gymnasium floor 60' x 90' ²	5,400			7	1
Bleacher space (if desired) 15' x 90'	1,350		1	3½	
Special exercise room 15' x 30'..	450			½	1
Swimming pool 25' x 60'.....	1,500			2	1
Classroom 25' x 30'	750			1	1
Team room 12' x 20'	240		1	½	
Miscellaneous	1,180				
Service				2½	
Basket room 5' x 60'.....	300		1		
Locker room	990		1		
Shower room 9' x 30'.....	270		1		
Lavatory 8' x 10'.....	80				
Laundry 10' x 12'.....	120				
Drying room	175				
Administration				1	
Outer office 8' x 10'	80		1		
Inner office (2) 8' x 10'.....	160		1		
Storage of supplies and towels	285				
Instructors' showers and lockers	225				
Total	13,555	8.64%	7	18	4

¹ Standard classroom 25' x 30'.

² Gymnasium must be double height.

a. Size. From the standpoint of public school use the problem is the number of gymnasiums for a large school rather than size. It is possible to divide a large gymnasium, preferably by sound proof partitions as is done in Detroit (page 216), and in Newark (page 220). In an emergency such partitions may be made by means of a net or canvas, although this is quite unsatisfactory.

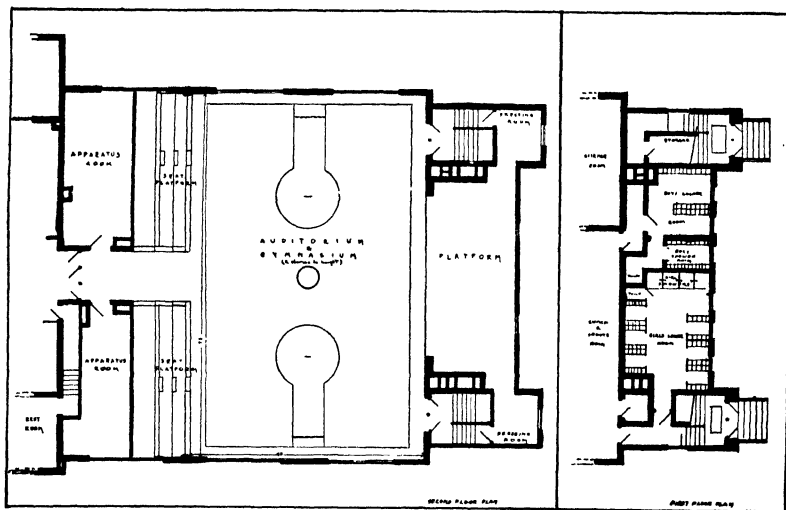
¹² Jackson Roger Sharman, *Physical Education Facilities in the Public Accredited Schools, Alabama*, Columbia Press, New York, 1930.

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The range of sizes is indicated in the following:

Minimum . .45' x 60'¹³ Medium . .50' x 80' Maximum . .60' x 90'¹⁴

b. Location. When possible the gymnasium and pool should be in a separate unit. Where it is connected with the main building it should have a separate ventilating unit so that the noises will not carry through the vents and disturb other classes. In small high schools it may be possible to combine the gymnasium and auditorium (page 206). In some instances the cafeteria comes into this combination. In other cases the gymnasium may be placed upon the stage of the auditorium. If this is done, careful planning is necessary—a sound proof curtain must separate



Architects, Thomas D. McLaughlin and Associates.

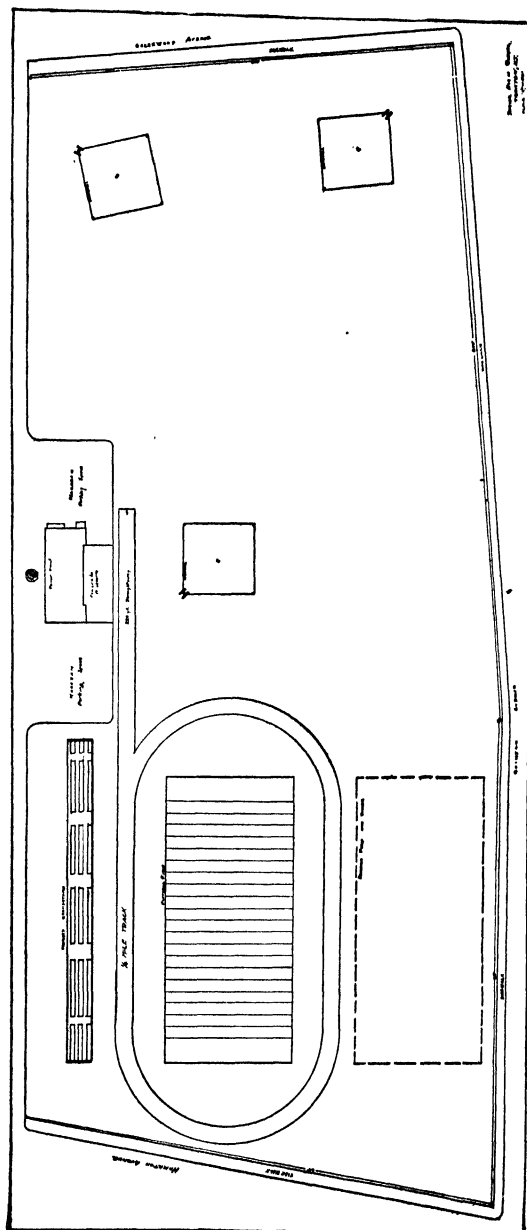
First and Second Floor Plans of Stokes Township School, Lake View, Ohio

the auditorium from the gymnasium for the protection of property and to make possible the simultaneous use of the auditorium and the gymnasium.

c. Walls. The walls of the gymnasium should be of impervious glazed brick or hollow tile. Two important points should be kept in mind—the material should not crumble when used for

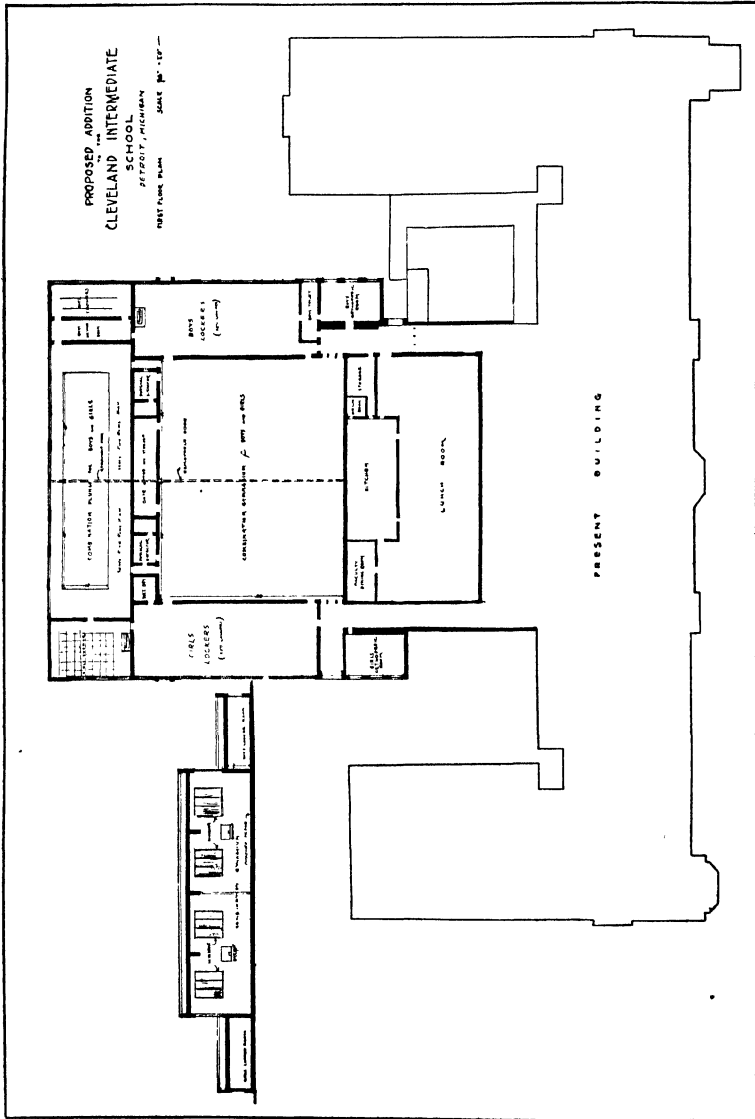
¹³ Louis Jallade, "Gymnasiums, Lockers, and Swimming Pools," *The American School and University*, American School Publishing Corporation, New York, 1928-1929, p. 179.

¹⁴ An additional width of fifteen feet should be allowed if bleachers are desired.



Yard Plan, Trenton Senior High School, Trenton, New Jersey

Courtesy of Walter Short.

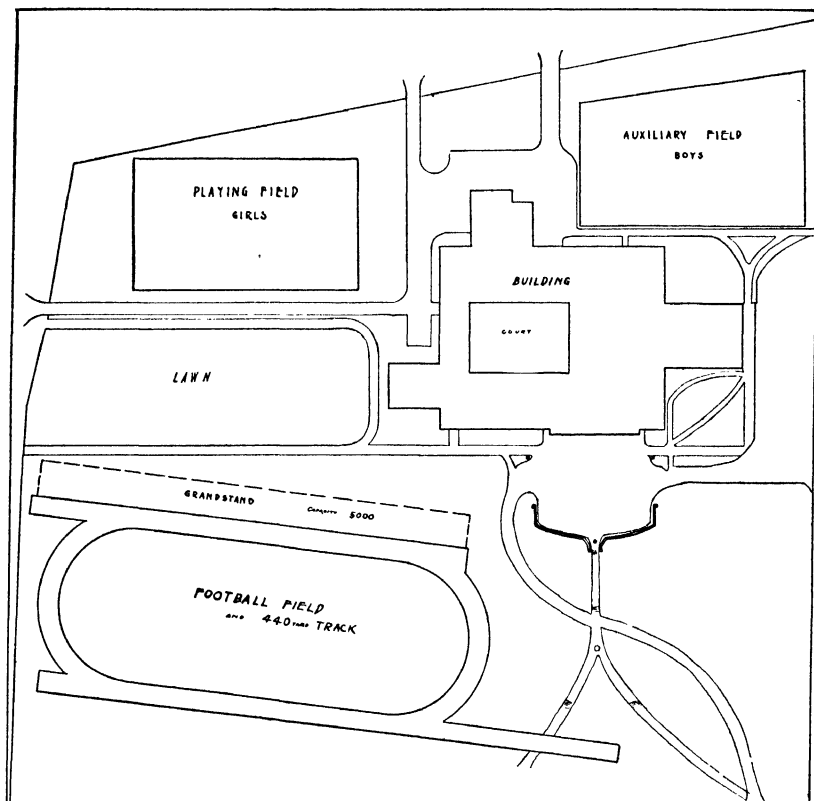


Courtesy of V. S. Blanchard.

Combination Gymnasium for Boys and Girls, Cleveland Intermediate School, Detroit, Michigan

handball, tennis serves, squash, and target throws, and should be sound absorbing.

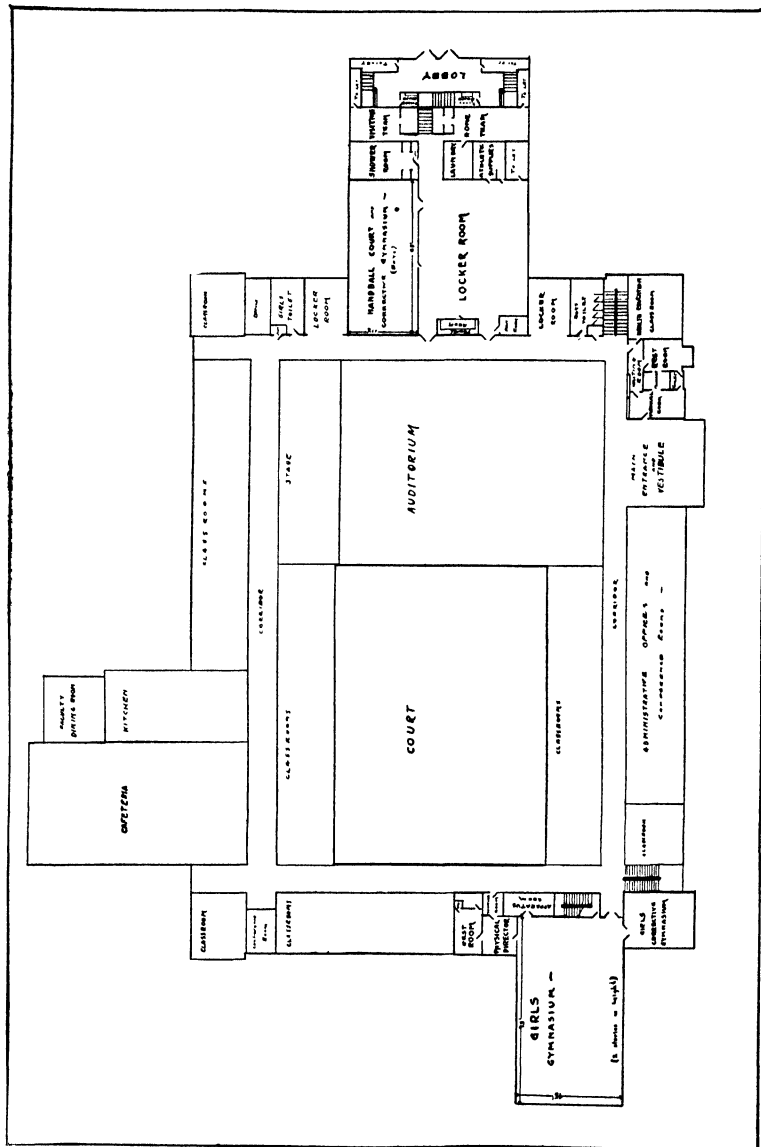
d. Floors. There seems to be some difference of opinion as to whether the pine blocks-on-end, cork or hard maple furnish the best surfacing. From the standpoint of the gymnasium activities



Courtesy of Frank McGovern.

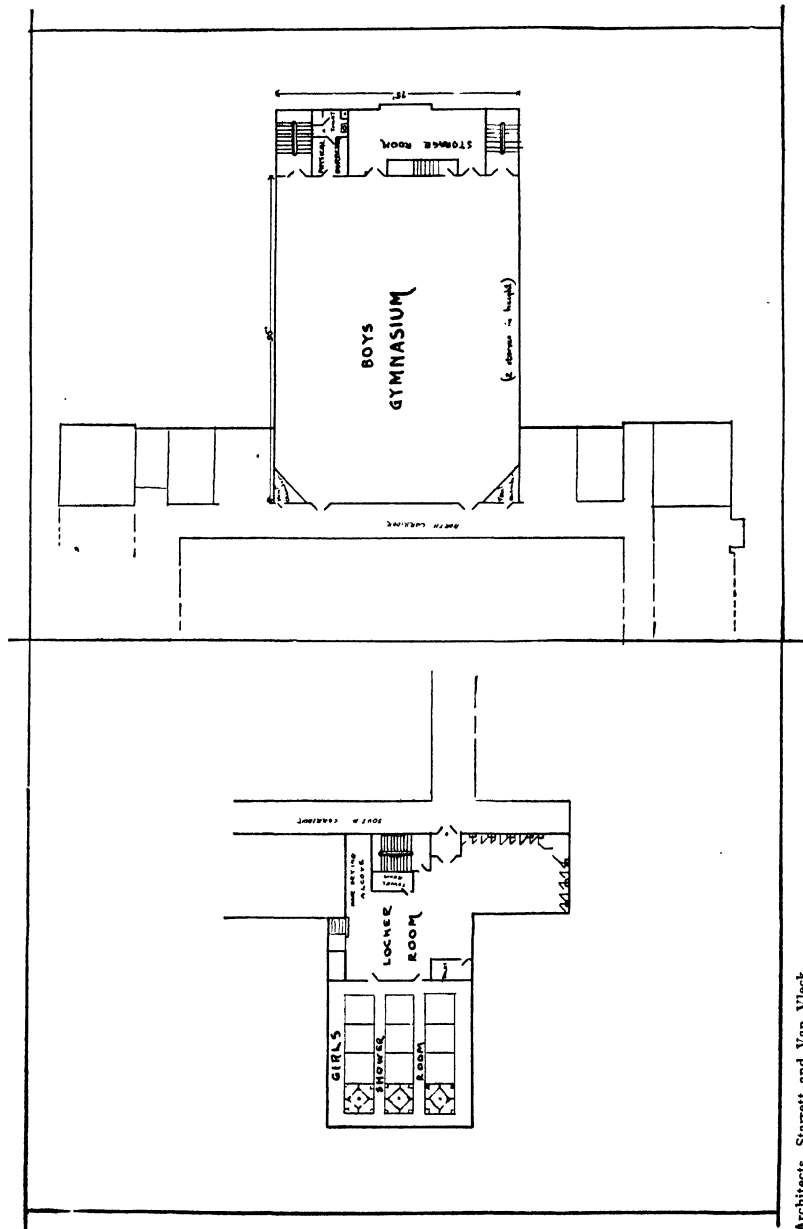
Yard Plan—White Plains High School, White Plains, New York

probably cork is the best. Considering the floor from the standpoint of intensive use not only for the strenuous activities but for evening recreation groups, probably the hard maple is best. This should consist of an inch and a quarter maple laid over tar paper, and common pine seven-eighths of an inch laid diagonally. The floors should be treated with fire-proof liquid after which they



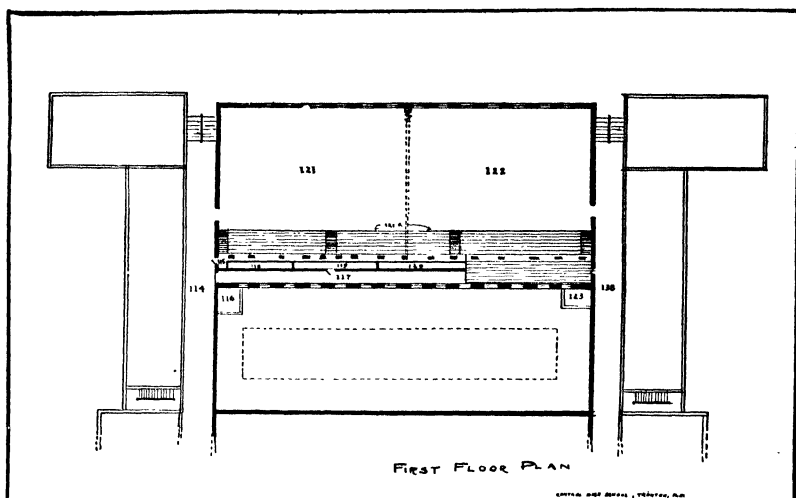
Architects, Starrett and Van Vleck.

First Floor Plan of White Plains High School, New York

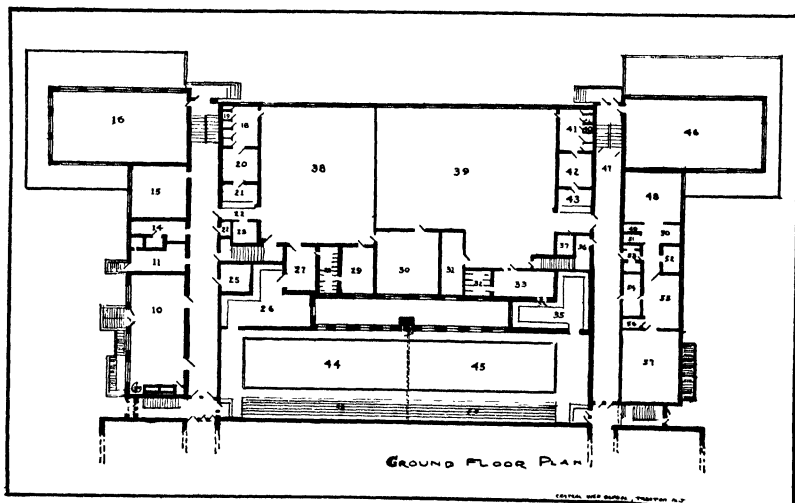


Architects, Starrett and Van Vleet.

Second Floor and Basement Plans, White Plains High School, White Plains, New York



Double Gymnasium Plan, Trenton Senior High School, New Jersey. Dotted Line Indicates Folding Partition. Note Spectators' Balcony.



Architects, Ernest, Sibley and Lawrence C. Light.

Ground Floor Plan, Central High School, Trenton, New Jersey: 16 and 46—Corrective Gymnasiums, 44 and 45—Swimming Pools, 38 and 39—Locker Rooms, 18 to 25 and 41 to 43—Office and Supply Rooms, 48 to 57—Health Service Rooms.

should be saturated with boiled linseed oil. They should then be brushed with the grain until all the oil has been removed from the surface. The floors should be polished with light non-oil wax. If the room is used for dancing it will probably be necessary to wipe the floor with a moist mop after each use. No water should be allowed to remain on the floor.

TABLE XXIII

COST COMPARISON OF SPACE DEVOTED TO PHYSICAL EDUCATION PLANT, COMPARED TO COST OF TOTAL SCHOOL PLANT¹

City	Elementary	Junior High	Senior High ²	Basis of Estimate
	%	%	%	
Detroit	10	20	24	From local school official.
Minneapolis	9.1	11.1	12.9 ³	Architectural Engineer of Minneapolis.
Des Moines.....	20	14.3	25	From local school official.
Cleveland Heights..	10	18	21	From local school official.
Houston	17 ⁴	..	..	From local school official.
Oakland	17 ⁴	13	19	Standard building plans, adding swimming pool.
Wichita .....	..	..	21	From local school official.
Oklahoma City ....	..	25	25	From local school official.
Donovan Standards.	..	..	18 ¹	Book on school architecture.
Average	13.8	16.0	21.4	

¹ Cost of yard space devoted to playground not included.

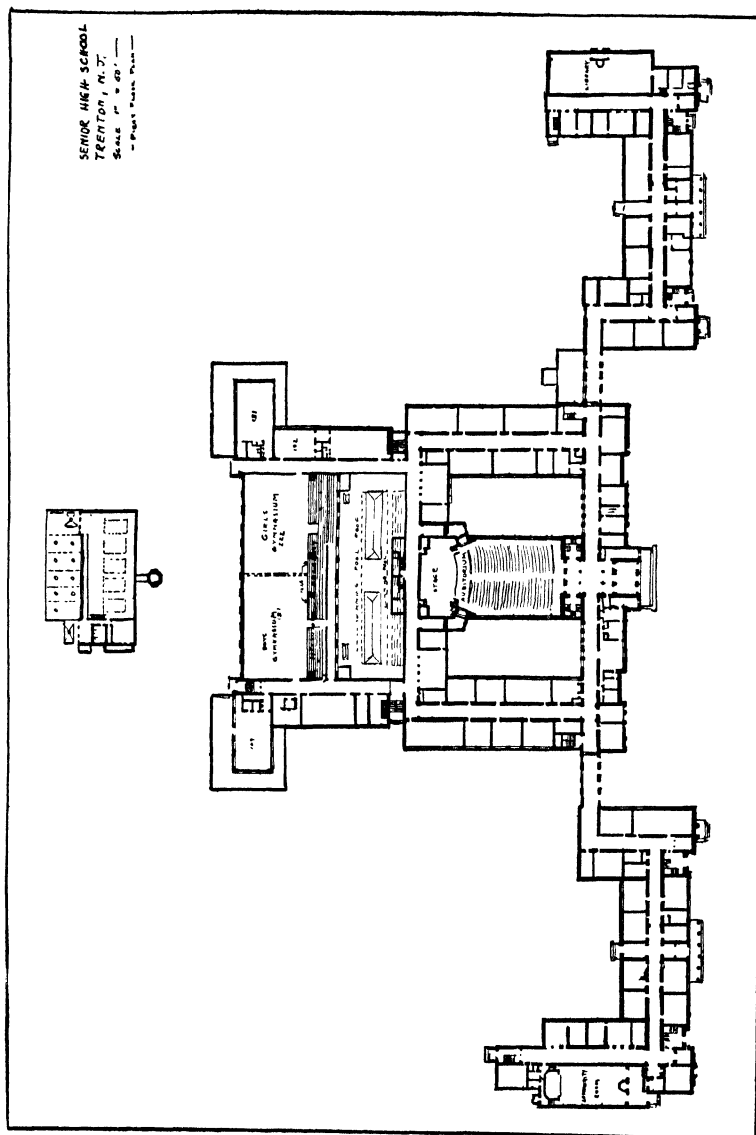
² Since the chart was made up, three New York City high school reports have been received, as follows: (1) 17.3%; (2) 23.7% (3) 27.1%.

³ Does not include swimming pool.

⁴ Includes assembly hall.

It is practical to cover the floor with a large canvas for banquets and social affairs other than dancing.

e. Ceilings. The ceiling does not need to be finished but should reflect all the light possible and be arranged to absorb sound. Felt



Architects, Ernest, Sibley and Lawrence C. Light

First Floor Plan Showing Physical Education Plant, Senior High School, Trenton, New Jersey

lining or other types of sound deadening devices may be utilized. The range of heights is indicated in the following:

Minimum. . 18'¹⁵ Maximum. . 22' Advised. . 20'

f. Stairs. If dressing and locker rooms are not on the same floor special stairs should be provided to keep people using the gymnasium from the main hallways. It is generally considered that stairs should make a right angle turn outside of the gymnasium door in order to prevent accidents. All wall equipment in the room should be recessed. This applies especially to radiators, door knobs, drinking fountains, etc.

g. Loud Speaker Equipment. This equipment should be recessed in the wall. The space should be of sufficient size to accommodate the mechanism necessary to receive broadcasting either from the commercial stations or from a central station within the institution.

h. Adjustable Apparatus Attachments. There should be located in the ceiling on all cross-beams two inch flange sockets. These should be approximately four feet apart with none nearer than a foot and a half to the side wall. These should be located in rows across the gymnasium from fifteen to twenty feet apart. There should be a total of seventy-five to one hundred of these flanges. This feature makes possible any combination of apparatus which it may seem advisable to install.

i. Floor Plugs. Numerous floor plugs should be installed for the purpose of anchoring apparatus as well as supporting standards for the various types of net games.

j. Windows. The windows should be of the Louvre screened type tinted or equipped with curtains set in grooves, and should be operated by unit control whereby a section of windows can be opened or closed with the turn of a handle. Although there is some advantage in having the windows low from the standpoint of light and ventilation, it seems to be of greater advantage to have them more than twelve feet from the floor in order to utilize the walls for activities.¹⁵

k. Skylight. Skylights have not proven satisfactory because of the tendency to allow leakage and to gather moisture. Apparently the solution is no skylights.

¹⁵ This height will not permit the installation of apparatus for official gymnastic competition but will be sufficient for basket ball and ordinary high school needs.

¹⁶ N. L. Engelhardt, "Research on School-Building Problems," *The American School and University*, American School Publishing Corporation, New York, 1928-1929, p. 27.

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l. Ventilation. The capacity of the ventilating system should be very large because many times it will be necessary to depend upon artificial ventilation. The gymnasium should be serviced with an independent unit so that the noise will not pass through the ducts and disturb other parts of the school.

m. Heating. Although many gymnasiums and locker rooms have not been heated, the extensive use of the gymnasium for community gatherings and social affairs, if for no other reason, makes heat a necessity. The temperature should be approximately as follows:

Locker room.....	70°
Gymnasium	60°—65°
Pool	80°

n. Relationship to General Administration. The location of the gymnasium floor should be such as to provide easy access for all users. Entrances and exits should be so planned that groups entering and leaving the gymnasium for activity will form a one way line of traffic. If spectators are not wanted on the floor it should be possible to lock certain doors which will necessitate their entering the balcony directly.

o. Relationship to Service Unit. The gymnasium floor should have entrances so that the flow to and from the service rooms becomes automatic. By this arrangement participants are not obliged to use the general corridors. Entrances and exits should also be so arranged that a check on towels, suits, early arrivals, late comers, etc., can be handled with the least amount of personal supervision.

p. Bleachers. Where indoor bleachers are a necessity an additional space fifteen feet wide should be required in the length of the gymnasium. Movable bleachers have been satisfactory but from the standpoint of safety and convenience bleachers which fold up to the wall are much better. The average school usually attempts to provide seating capacity for half the total enrollment.

q. Relationship to Community Use.^{17, 18} It is of the greatest importance that the gymnasium floor with its attached dressing rooms, locker rooms, lavatories, and administrative units should be so constructed that it may be entirely segregated from the rest of the building when used for community purposes during the

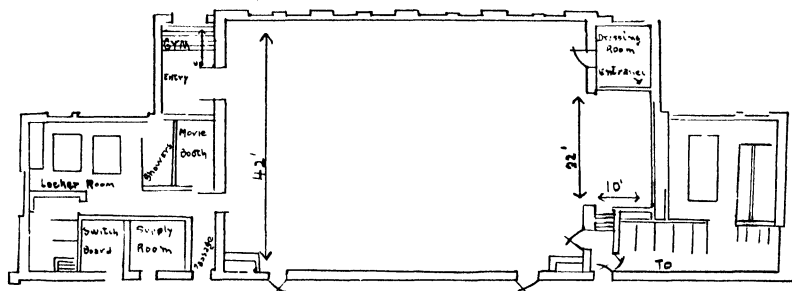
¹⁷ George Drayton Strayer, "Planning the School Plant in Relation to the Recreational Needs of the Community," *The American School and University*, American School Publishing Corporation New York, 1930-1931, p. 225.

¹⁸ Eleanor T. Glueck, *op. cit.*

evening or vacation periods. It might even be advisable to provide a small unit of lockers and showers so that the evening and vacation use would not involve the main locker and shower rooms. This could be done by partitions in such a way as to involve but little increase in expense.

r. Running Track. While some cities, notably Detroit, plan for a running track in the gymnasium it is generally conceded that it is not a necessary part of the high school physical education plant. It is very expensive, occupies an important wall space which should be used for other purposes, and cuts off light and makes it difficult to divide the space into two teaching areas.

s. Equipment. Simplicity and adaptability should be the dominant notes in selecting equipment for the indoor gymnasium. Too much equipment not only greatly increases the expenses of



Courtesy of W. D. W., Superintendent.

Gymnasium Plan, Morley Consolidated Schools, Michigan, Village of 350 People

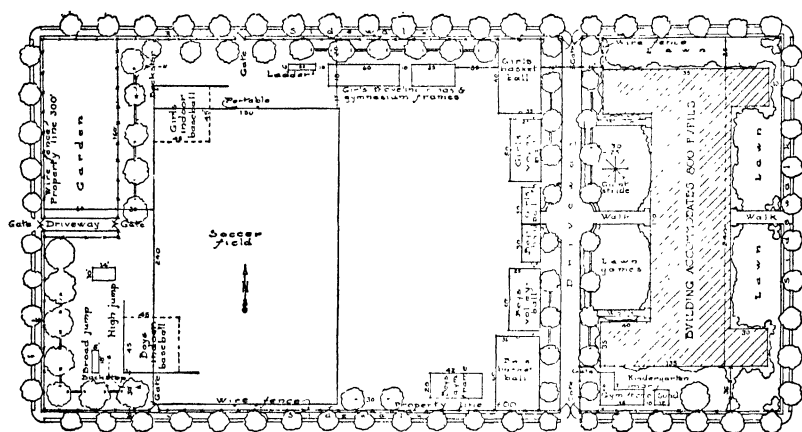
the plant but takes up valuable room which could be used for other purposes. Wherever possible apparatus should be hung from the ceiling so that when not in use it would be out of the way of other activities. Apparatus should be selected in view of its number of uses.

(1) Game Equipment. Provision should be made for basket ball—additional basket ball goals should be placed against the wall for games which involve basket ball elements—indoor base ball, volley ball, paddle tennis, and shuffle board. The markings should be in different colors on the floor. By scoring the edge of the line repainting is made easy. Provision should be made on the wall for tennis serve, base ball and volley ball throw for accuracy, and other game elements adaptable to the program. A collapsible canvas golf cage and a felt archery back-stop would be usable.

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(2) Movable Apparatus. Movable or collapsible apparatus should be provided in sufficient number to accommodate the peak-number of squads for which the gymnasium is planned. A selection of two or three from each of the following classifications should fulfill the need in a program which is planned for a maximum limit of six squads.

(a) Suspension Apparatus. Flying rings, traveling rings, horizontal ladder, horizontal bar, stall bars, ropes and rope lad-



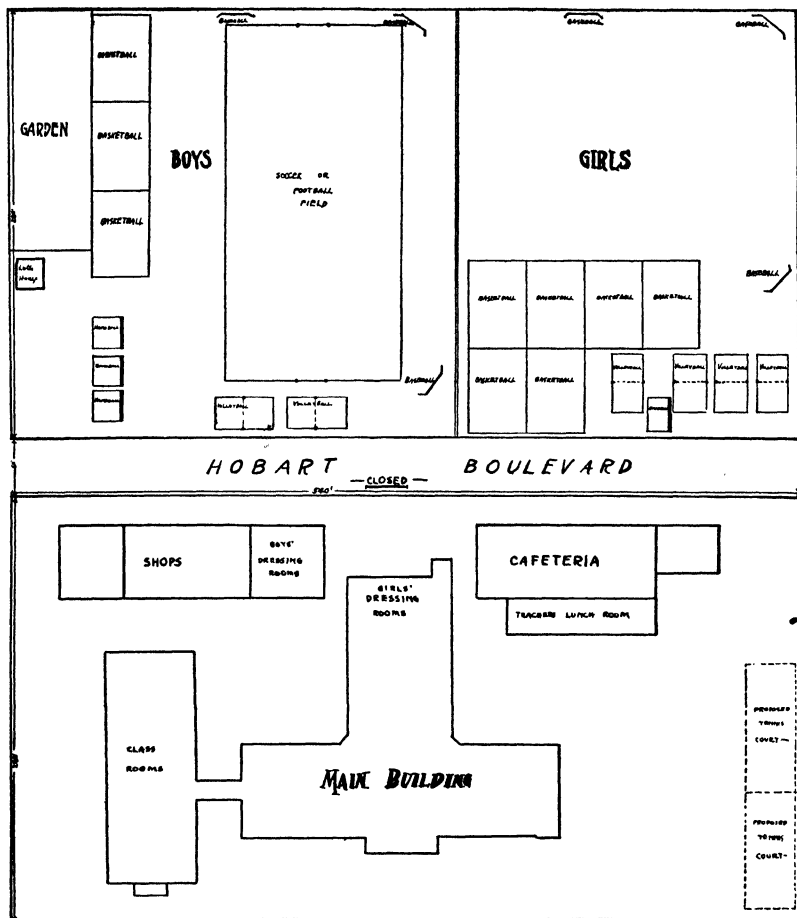
• IDEAL • LAYOUT • OF • ELEMENTARY • SCHOOL • GROUNDS •
160 SQUARE FEET OF PLAY SPACE PER PUPIL

Elementary School Ground Plan for Diversified Activity

ders. The traveling rings are especially useful in the girls' program.

(b) Vaulting Apparatus. Vaulting box, horse, buck, and boom. The parallel and the horizontal adjustable bars constitute excellent pieces of apparatus for both suspension and vaulting.

(3) Miscellaneous Apparatus. The necessary miscellaneous apparatus includes mats—girls especially should be provided with small individual mats which can be easily moved—spring and beat boards, piano, mat truck, victrola, bulletin board, indoor hurdles, balanced beam, and a dozen wands, Indian clubs, and dumb bells to be used in relay races, stunts, and games. Mats may be painted or covered with oil cloth. The sponge rubber mat offers many advantages.



Courtesy of C. J. Glenn.

Plans for Special Play Areas for Boys and Girls, Junior High School, Los Angeles, California

(4) Equipment Costs. Weet¹⁹ reports the cost of equipment in physical education including recreational athletics, medical, surgical, and gymnastic, as being \$8,192.27 for a junior high school at the peak of costs.

2. *Apparatus Room.* A small apparatus room adjacent to the gymnasium floor is usually essential. It is used for the purpose of

¹⁹ H. S. Weet, *The Junior High School*, Board of Education, Rochester, New York, 1923, p. 194.

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storing apparatus and mats. It should have a large opening onto the main floor. The door between the two rooms should be of the roll type. Folding doors are difficult to open and close and often extend onto the gymnasium floor far enough to constitute a menace. Occasionally this room can be made to serve those participating in individual activities. It could also serve as a cloak room for social affairs, and a serving room for banquets. California schools suggests the following dimension standards:²⁰

<i>Number Enrolled</i>	<i>Width</i>	<i>Length</i>	<i>Height to Square</i>
0—150	20'	25'	14'
151—500	30'	40'	16'
501—900	35'	50'	16'
901 & over	40'	60'	18'

3. *Special Rooms.* If it is at all possible from the standpoint of funds rooms for special activities should be provided.

TABLE XXIV
SPACE ALLOTMENT FOR SMALL CHILDREN

	<i>No. of Places</i>	<i>Use Sq. Footage</i>	<i>Maximum Players</i>
Sand Box	2	320	32
Wading Pool	1	800	50
Apparatus	2	8,000	30
Jungle Gym	1	600	15
Bat Ball	2	9,600	40
Net Ball	2	3,000	40
Games (Tag and It)	4	3,200	80
Unassigned	4	4,800	30
	18	30,320 ¹	317 ²

¹ Area—approximately $\frac{3}{4}$ acre.

² Player per acre—approximately 350.

a. *Room for Individual Activities.* This room should be approximately twenty by thirty feet, with a height of ten to twelve feet. Adequate light, heat, and ventilation should be provided. It should be equipped with stall bars, mats of various sizes, high ladder, flying rings, a few wands, Indian clubs and dumb bells, and large full length mirrors. An adjoining room might well be equipped with infra-red and ultra-violet lights, diathermancy, foot baths, and other physical therapy equipment.

²⁰ *Score Card for Physical Education* (High School—Boys), Bulletin No. E-2, California State Printing Office, Sacramento, 1930, p. 10.

b. Handball Courts. Handball courts may be constructed in the gymnasium, field house or stadium. These courts usually have a dimension of twenty by forty feet. One wall out-door courts are very satisfactory.

c. Squash Courts. Squash courts are being constructed in many institutions. The average dimension is eighteen and five tenths by thirty-two feet.

d. Other Facilities. It is advisable to provide opportunities for golf driving and putting, archery practice, tennis serving, boxing, wrestling, and many other activities that have carry-over value. In small institutions provision for these will have to be made on the gymnasium floor in the small apparatus room and out of doors. They are, however, especially advisable in large institutions having field houses (page 238).

4. *Athletic Fields*.^{21, 22, 23, 24}

a. Type.²⁵ Public school playgrounds are an essential part not only of physical education but of the community playground and recreation activities. Of the five types of open areas in a city plan the school yards constitute two, namely, the neighborhood and district play areas.²⁶ They should therefore be planned from the standpoint of school and community use (figures 217, 226, 227). The school lavatories, locker rooms, dressing rooms, even the gymnasium, should be so constructed that they can be used for community activities without reference to the rest of the school building. Suggestions on locker, shower, and toilet locations will be found in "Organization and Administration of Playgrounds and Recreation."²⁷

²¹ George B. Ford, "Schools and School Play Yards—A Scientific Method of Determining Their Location and Urgency," *The American School and University*, American School Publishing Corporation, New York, 1928-1929, p. 187.

²² E. S. Draper, "New School Grounds Development at Greensboro, N. C.," *The American School and University*, American School Publishing Corporation, New York, 1928-1929, p. 149.

²³ Gavin Hadden, "Outdoor Athletic Facilities at School and University," *The American School and University*, American School Publishing Corporation, New York, 1928-1929, p. 172.

²⁴ Walter H. Heideman, "Planning an Athletic Field," *The Journal of Health and Physical Education*, Vol. I, No. 9, American Physical Association, Ann Arbor, Michigan, November, 1930, p. 38.

²⁵ Clarence Arthur Perry, "The Relation of School-Site Planning to Neighborhood Planning," *The American School and University*, American School Publishing Corporation, New York, 1929-1930, p. 13.

²⁶ Jay B. Nash, *Organization and Administration of Playgrounds and Recreation*, A. S. Barnes and Co., New York, 1928, pp. 64-85.

²⁷ *Ibid.*, p. 282.

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b. Size.^{28, 29} Laws regulating size of school yards. During the past decade there has been a widespread movement for the purpose of supplying adequate areas for school playgrounds. The playground should receive as careful planning as the building itself. An attempt has been made in the past to determine the size of yards by means of figuring the square foot needs per child. This method is entirely impractical for two reasons. First, there is a minimum size below which a yard cannot go for practical use regardless of the size of the school.³⁰ Second, the yard that is equipped for one hundred children can just as readily serve seven hundred children by means of scheduling the groups.³¹

Areas required by law. In a few states laws have been passed regarding maximum and minimum size of play areas. These have not been particularly satisfactory because both maximum and minimum have been too low. A number of states, Iowa, Kansas and Montana, require a minimum of one acre. Minnesota requires two acres; North Carolina, four; South Dakota, from one to five.

Areas required by state boards of education. In a number of instances the state board of education sets requirements. These maximums and minimums are considerably higher than those established by law.

Areas recommended by state boards of education. These recommendations are higher than either of the requirements just mentioned and are sufficient to meet the school and community needs.³² Note the amount of space necessary for various games (pages 227 and 231).

Where basket ball, soccer and hockey are combined on one area, if other games are to be adequately provided for, the minimum area necessary is four and four-tenths acres. If the baseball and football fields are to be separate, seven and one-tenth acres are required. Unless an adequate area is provided, it will be monopolized by representative school teams of boys, utterly disregarding the entire mass of the student body of boys and all of

²⁸ G. D. Strayer and N. L. Engelhardt, *Standards for High School Buildings*, Teachers College, Columbia University, New York, 1924, p. 9.

²⁹ George B. Ford, "Schools and School Play Yards—A Scientific Method of Determining Their Location and Urgency," *The American School and University*, American School Publishing Corporation, New York, 1928-1929, p. 189.

³⁰ Jay B. Nash, *op. cit.*, p. 69.

³¹ N. L. Engelhardt and Fred Engelhardt, *op. cit.*, pp. 127-212.

³² *White House Conference on Child Health and Protection*, Section 111-C, Committee on the School Child, Report of Sub-committee on Legislation, Washington, D. C., 1930, p. 18.

TABLE XXV

ANALYSIS OF SPACE NEEDS FOR NEIGHBORHOOD PLAYGROUND

	<i>No. of Places</i>	<i>Use Sq. Footage</i>	<i>Maximum Players</i>
Baseball-Soccer-Hockey (combined)	1	97,500	18
Basketball	2	12,000	20
Handball	4	4,000	16
Playground Ball	1	22,500	20
Quoits	2	4,000	8
Tennis	2	14,400	8
Volley Ball	6	16,000	72
Sand Box	1	160	16
Apparatus	2	16,000	30
Games (Tag and It).....	4	3,200	80
	25	189,760 ¹	288 ²

¹ Area—approximately 4.4 acres.² Players per acre approximately 65.

TABLE XXVI

ANALYSIS OF SPACE NEEDS FOR DISTRICT PLAYGROUND

	<i>No. of Places</i>	<i>Use Sq. Footage</i>	<i>Maximum Players</i>
Baseball	1	97,500	18
Soccer and Football.....	1	75,600	22
Basket Ball	2	12,000	20
Volley Ball	4	12,000	48
Tennis	4	14,000	16
Handball	4	8,000	16
One-fourth Mile Track.....	1	10,700	20
Field Events	4	8,000	20
Playground Baseball	1	22,500	20
Clock Golf	1	1,100	8
Paddle Tennis	1	1,800	4
Roque	1	1,800	4
Archery	1	2,500	10
Emergency	1	40,000	20
	..	307,500 ¹	246 ²

¹ Area approximately 7.1 acres,² Players per acre approximately 34.

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the girls. To provide adequately for the needs of physical education, with a peak-load of three hundred, the following summary of the published standards is given. This is a minimum, from the standpoint of needs, regardless of school attendance, and exclusive of buildings.³³

Elementary School (grades 1-6).....	5 acres
Junior high school.....	7 acres
Senior high school.....	10 acres
High school	12 acres
Rural school	4 acres

The way in which individual cities are meeting this need is indicated by the size of school yards actually existing in certain selected cities:³⁴

Santa Cruz, California

School Sites: There are 9 school sites, the smallest being 1.5 acres and the largest 15 acres. The average size of the school sites is approximately four acres.

Greensboro, North Carolina

School Sites: The school sites of Greensboro comprise the following areas: .25 of an acre; .5 of an acre; 3, 7, 9, 10, 12, 12, 15, 17, 75 acres respectively (1925), or a total of 160.30 acres. As is readily seen the majority of these provide not only for children's playgrounds but also for neighborhood playfield-parks.

San Jose, California

School Sites: There are sixteen school properties, which may be classified according to size as follows:

	<i>No. Sites</i>	<i>Area Acres</i>
1 to 2 acres	1	1.0
2 to 3 acres	2	5.2
3 to 5 acres	6	22.1
5 to 8 acres	5	25.7
10 to 12 acres	2	21.0
	<hr/>	<hr/>
Totals	16	75.0

Pasadena, California

School Sites: The school sites classified according to size are as follows:

³³ Jay B. Nash, *op. cit.*, pp. 68-76.

³⁴ Parks, Vol. I, *A Manual of Municipal and County Parks*, edited by L. H. Weir, A. S. Barnes and Co., New York, 1928, p. 19.

	<i>No. Sites</i>	<i>Total Acres</i>
1 to 2 acres	4	5.50
2 to 3 acres	6	14.25
3 to 5 acres	7	25.50
over 5 acres	3	16.00
10 to 20 acres	5	74.00
over 20 acres	1	40.00
	<hr/>	<hr/>
Totals	26	175.25

Sacramento, California

School Sites: There are 21 different sites totaling 159.5 acres gross. The size of the sites is shown by the following table:

	<i>No. Properties</i>	<i>Total Acres</i>
Under 1 acre	1	.5
1 to 2 acres	1	1.5
2 to 3 acres	9	21.5
4 acres	1	4.0
5 acres	3	15.0
6 acres	2	12.0
7 acres	1	7.0
8 acres	1	8.0
30 acres	1	30.0
60 acres	1	60.0
	<hr/>	<hr/>
Totals	21	159.5

East St. Louis, Illinois

School Sites: There are 28 school sites, totaling 57.5 acres. The size of these areas is shown by the following table:

	<i>No. Properties</i>	<i>Total Acres</i>
Under 1 acre	6	3.0
1 to 2 acres	6	7.0
2 to 3 acres	12	26.9
3 to 5 acres	2	7.1
6.5 acres	1	6.5
7 acres	1	7.0
	<hr/>	<hr/>
Totals	28	57.5

San Diego, California

School Sites: The school sites comprise 35 different properties totaling 145.2 gross. These areas classified according to size are as follows:

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	<i>No. Properties</i>	<i>Total Acres</i>
Under 1 acre	2	.90
1 to 2 acres	8	11.70
2 to 3 acres	8	18.80
3 to 4 acres	5	16.80
4 acres	3	12.00
5 to 10 acres	4	26.00
10 acres	3	30.00
12 acres	1	12.00
17 acres	1	17.00
	<hr/>	<hr/>
Totals	35	145.20

Tulsa, Oklahoma

School Sites: There are 29 school sites with a gross area of 128.2 acres and an estimated free play area of 112.1 acres. These areas classified according to size follow:

	<i>No. Properties</i>	<i>Total Acres</i>
1 to 2 acres	1	1.7
2 to 3 acres	8	17.5
3 to 4 acres	3	9.0
4 to 6 acres	11	52.0
6 to 9 acres	3	18.0
10 acres	3	30.0
	<hr/>	<hr/>
Totals	29	128.2

Oklahoma City, Oklahoma

School Sites: A classification of the school sites as to size follows:

	<i>No. Properties</i>	<i>Total Acres</i>
Under 1 acre	4	2.0
1 to 2 acres	7	8.0
2 to 3 acres	18	42.0
3 to 5 acres	10	32.0
5 acres and over	6	33.5
	<hr/>	<hr/>
Totals	45	117.5

Tacoma, Washington

School Sites: Fifty school areas were reported (1925-26) totaling 200.265 acres. A classification of these areas according to size follows:

	<i>No. Properties</i>	<i>Total Acres</i>
Under 1 acre	8	5.703
1 to 2 acres	17	28.413
2 to 3 acres	10	24.900
3 to 4 acres	6	20.447
4 to 5 acres	2	8.178
6 to 10 acres	4	31.341
10 to 11 acres inclusive	2	21.083
60 acres and over	1	60.200
Totals	50	200.265

Flint, Michigan

School Sites: Flint is especially distinguished by the number and size of its school sites. The majority of the sites are not only large enough to provide ample areas for children's playgrounds but to serve also as neighborhood playfield-parks. The following is a classification of the existing areas:

	<i>No. Sites</i>	<i>Total Areas</i>
Under 1 acre	3	1.674
1 to 3 acres	8	15.744
3 to 5 acres	11	42.603
5 to 10 acres	7	42.359
10 to 20 acres	5	57.463
20 to 50 acres	3	78.220
50 acres and over	1	57.000
Totals	38	295.063

Gary, Indiana

The Physical Education Department of Gary, operating as it does under the Work, Study, Play Plan, gives us one of the best examples of the ability of the school to provide adequate play areas at all school buildings, and to operate them continuously throughout the year. Indication of the size of these areas is shown in the size of the sites in the order of their acquirement:

	<i>Acres</i>
West Fifth Avenue	20.66 (net)
West Gary, New	50.
West Gary, Old	0.62 (net)
Tolleston	17.
Beveridge	0.75
Ambridge	3.91
Horace Mann	17.
Jefferson	1.62

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Emerson	10.2
Froebel	10.27
Pulaski	32.
Theodore Roosevelt	19.1
35th Avenue	19.
Glen Park	1.22
45th Avenue	25.
Miller	3.
Clark Station	1.
Riley School	19.1
Virginia School	19.
Garden School	10.
West 15th Avenue School....	10.

c. Surface.³⁵ In many instances large areas are provided and very little use obtained from the same because of poor surface. Of all expenditures this seems to be the most uneconomic. The yards should be surfaced so that it is possible to play upon them at all times when it is not actually raining. Sandy-loam or grass necessitates a short delay after a rain. Two types of surface may be provided in accordance with local conditions.

(1) Hard Bounce Surface. This hard bounce surface is needed for such games as basket ball, tennis and handball. It is also needed as a general play surface for dancing and many types of physical education activities which can be held out of doors. This surface may consist of the following, preferably in the order mentioned: oil macadam, cement, and hard clay with a thin coating of cinders or oil. There should be half per cent pitch³⁶ for the purpose of drainage. The playground area immediately adjacent to the school building should thus be surfaced.

(2) All other portions of the playground should be surfaced with sandy-loam or grass. Sandy-loam must be kept moist to keep down the dust and should be frequently scarified in order to prevent it from becoming hard. Grass requires cutting and a great amount of care, and is therefore very expensive in many parts of the country. Any surface needs care. Breaks in oil and cement must be repaired.

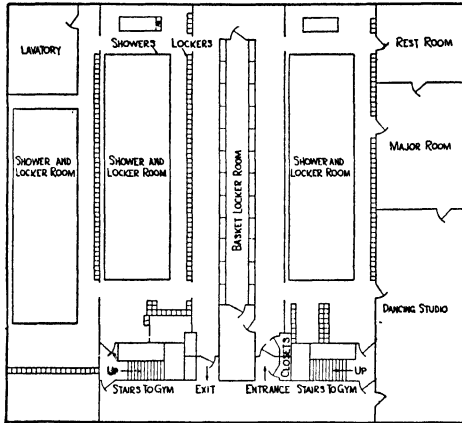
d. Fences.³⁷ Play areas should be fenced leaving ten to fifteen

³⁵ Jay B. Nash, *op. cit.*, p. 270.

³⁶ One per cent pitch is a rise or fall of one foot in a hundred feet.

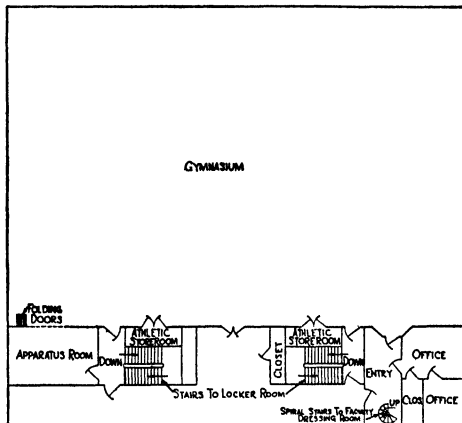
³⁷ W. F. Goodnough, "The Fencing of School Yards and Athletic Fields," *The American School and University*, American School Publishing Corporation, New York, 1929-1930, p. 227.

feet between the fence and the sidewalk for the purpose of landscaping.



Plan of Locker and Shower Unit at New York University—Note Basket Locker Room

e. Beautification.³⁸ All playground areas should be made good neighbors, that is, they should be made attractive. Vines can be



Plan of Gymnasium Floor at New York University—Note Apparatus Room

grown upon the fences, bushes, and trees may be planted between the fence and the sidewalk. A recent investigation³⁹ indicates that

³⁸ N. L. Engelhardt and Fred Engelhardt, *op. cit.*, pp. 213-228.

³⁹ Jacob W. Feldman, *The Effects of Playgrounds on Land Values*, reprinted from *Playground and Recreation*, 315 Fourth Avenue, New York City, September, 1929.

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real estate values near playgrounds have increased more than in areas not adjacent to them.

f. Stadiums and Field Houses. While individual high schools as a rule will not make provisions for stadiums there is a growing tendency for at least one stadium to be provided by the city as a whole. Excellent examples of this are seen in San Diego, and Newark. The combination grandstand-field house of Brookline, Massachusetts, represents a practical application of the stadium idea to the school.⁴⁰ Where grandstands are provided the space under them should be utilized, first for lavatories and dressing rooms and then for activity space for such games as handball, squash, boxing, wrestling, etc. The fieldhouse type of building which has been developed by the Universities of Minnesota, Iowa, and Michigan, has some application for the high schools. The Oak Park and Forest River Township high school has erected such a building.⁴¹

g. Lighting. A number of commercial firms have on the market practical equipment for the lighting of outdoor play areas. In climates where during a reasonable portion of the year outdoor activities are possible, grounds should be lighted.

h. Score Card for Selection of School Sites. Score cards which may be used in the selection of school-building sites have been developed so that the various elements which come into such selection may be properly weighed. Engelhardt⁴² considers as major elements location, accessibility, size, topography, utilization and cost. From the standpoint of the use of the playground we are interested in the elements under topography, which Engelhardt lists as follows: elevation, orientation, shape, vista, surface of land, and distribution of natural elements.

i. Equipment of Yards.⁴³

(1) Boys. We have already pointed out that if a school yard is to be used as a laboratory for physical education activities there is a minimum size below which it cannot go regardless of the enrollment. It takes just as much space to play a game of football or field hockey in a school which has an enrollment of fifty as it does

⁴⁰ "Brookline Grandstand-Field House," reprinted from *Parks and Recreation*, July-August, 1929.

⁴¹ Frank A. Childs, "New Physical Education Buildings of the Oak Park and River Forest Township High School," *The American School and University*, American School Publishing Corporation, New York, 1929-1930, p. 215.

⁴² N. L. Engelhardt and W. B. Featherstone, "Score Card for Selection of School Sites," *The American School and University*, American School Publishing Corporation, New York, 1930-1931, p. 29.

⁴³ N. L. Engelhardt and Fred Engelhardt, *op. cit.*, pp. 127-150.



Upper Picture Shows Outside of Self-Served Locker Booth; Lower Picture Shows the Inside, Available Only to Custodian Who Inspects Baskets. This is the New York University Self-Served Plan.

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in a school with an enrollment of five hundred. The school with the larger enrollment would reduce the peak-load of use by playing the games at different hours. The size of the half-mile tract enclosing the football and soccer fields and baseball diamond establishes the minimum square foot needs. A yard of the size where the playing of one game precludes other games limits the use to a very small group.

In addition to this minimum activity grouping there should be added basket ball, volley ball, hand ball and horse shoe pitching. If possible the soccer and football areas should be distinct from the baseball and track areas. This requires a minimum of approximately five acres for the boys. If tennis is added it would be nearer six acres. The California standards here listed are an excellent example of what schools are doing: ⁴⁴

Basketball Courts—Size 45' x 80', plus 5 feet of side and end space; surfaced; slope 4" to 100'; lines marked; good basketball goals; court running north and south.

Tennis Courts—Size 36' x 78' net; total width 50'; total length 120'; surfaced; slope 4" to 100'; lines marked; good net and net posts (removable); court running north and south; surrounded by No. 9 chain link fence (2-inch mesh), 12 feet high; metal posts set in concrete; 1 gate.

Handball Courts—Size 20' x 40'; height 18'; four walls preferred; cement or tongue and groove, painted; surfaced or wood flooring; courts running north and south; slope 4" to 100'.

Volley Ball Courts—Size 30' x 60' net, with 4' 0" borders; surfaced; slope 4" to 100'; posts 4' x 4', eight feet above ground; good net; lines marked; courts running north and south.

Football Field—Size 160' x 360'; 10 yards additional space on each side and end; standard goal posts; good turf; adequate watering and drainage system; approximately level; field running north and south; lines marked.

Soccer Fields—Size 160' x 240'; good turf; field running north and south; standard goal posts; adequate watering and drainage system; approximately level; lines marked.

Speedball Field—Size 160' x 360'; good turf; field running north and south; standard football goal posts; adequate watering and drainage system; approximately level; lines marked.

Baseball Diamond—Size 90' x 90'; field limit 235'; may be superimposed on some other field; good turf in field area; dirt in good shape within diamond area; home plate in northeast corner; adequate backstop; good bases; field approximately level; lines marked.

Playground Baseball Diamonds—Size 60' x 60'; field limit 135'; may be superimposed on some other field or in free play area; surface—dirt in good

⁴⁴ *Score Card for Physical Education, op. cit., pp. 14-15.*

shape or turf; home plate in northeast corner; adequate backstop; good bases; field approximately level; lines marked.

Track—Size $\frac{1}{4}$ mile; 220 yard straightaway, if possible; track on straightaway 30' in width; remainder 20' in width; curves banked; curb of wood or concrete; cinders or sandy loam surface; drain tile and drainage beds all around edge.

High Jump Pits—Size 8' x 14'; pit filled with sawdust or with loose sand; standards; cross bars; sufficient level space for run on cinder or sandy loam pathway.

Broad Jump Pits—Size 6' x 20'; pit filled with sawdust or wet loose sand; take-off board; sufficient level space for run on cinder or sandy loam pathway.

Pole Vault Pit—Size 8' x 14'; pit filled with sawdust or wet loose sand; standards with movable center piece; cross bars; wood box for pole hole; sufficient level space for run on cinder or sandy loam pathway.

Horseshoe Courts—40' between pegs; iron pegs; pitch board frame around peg 6' x 6'; level ground; 10 feet between courts; extra space at end of each court.

Croquet Courts—Size 30' x 60'; turf; level; boundary limitations marked.

Archery Lanes—Size 10' x 100'; good standard make target; safety; turf.

Golf Driving Cage—Size 10' x 12'; height 12'; constructed of steel frame and small mesh wire; canvas drop at back; good tee.

Golf Putting Green—Size 100' x 100'; 9 holes; green in good condition; surrounded by good fence.

Bleachers—Outside bleachers with minimum seating capacity equal to $\frac{1}{2}$ of student body enrollment; safe; not unsightly.

(2) Girls. A separate area must be provided for the girls' activities. In the past girls have had the use of outdoor space only when the boys did not desire it. This gave them very little time. The hockey field combined with a forty-five-foot playground base ball diamond; and volley ball, basket ball and tennis courts; establish the minimum size between four and five acres.⁴⁵

Girls in the high school should have in addition to the areas above mentioned provisions for archery lane, golf cage and green, horse shoe court, hand ball, deck tennis, and an open area which would serve a variety of needs.

5. *Swimming Pool*. Refer to "Organization and Administration of Playgrounds and Recreation,"⁴⁶ for suggestions concerning swimming pools.

6. *Class Rooms*. Another instructional unit which is of great importance is the standard class room. This may be used as a

⁴⁵ An acre is 43,560 square feet.

⁴⁶ Jay B. Nash, *op. cit.*, Chapter XXVIII.

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meeting place for discussing health projects, for black board talks on the coaching of games, for planning schedules, and the training of group leaders. The class room can be utilized also as a bad weather institution when groups cannot go out of doors. With folding chairs it would be possible to clear the room for an activity space. Twenty-five by thirty feet is a convenient size.

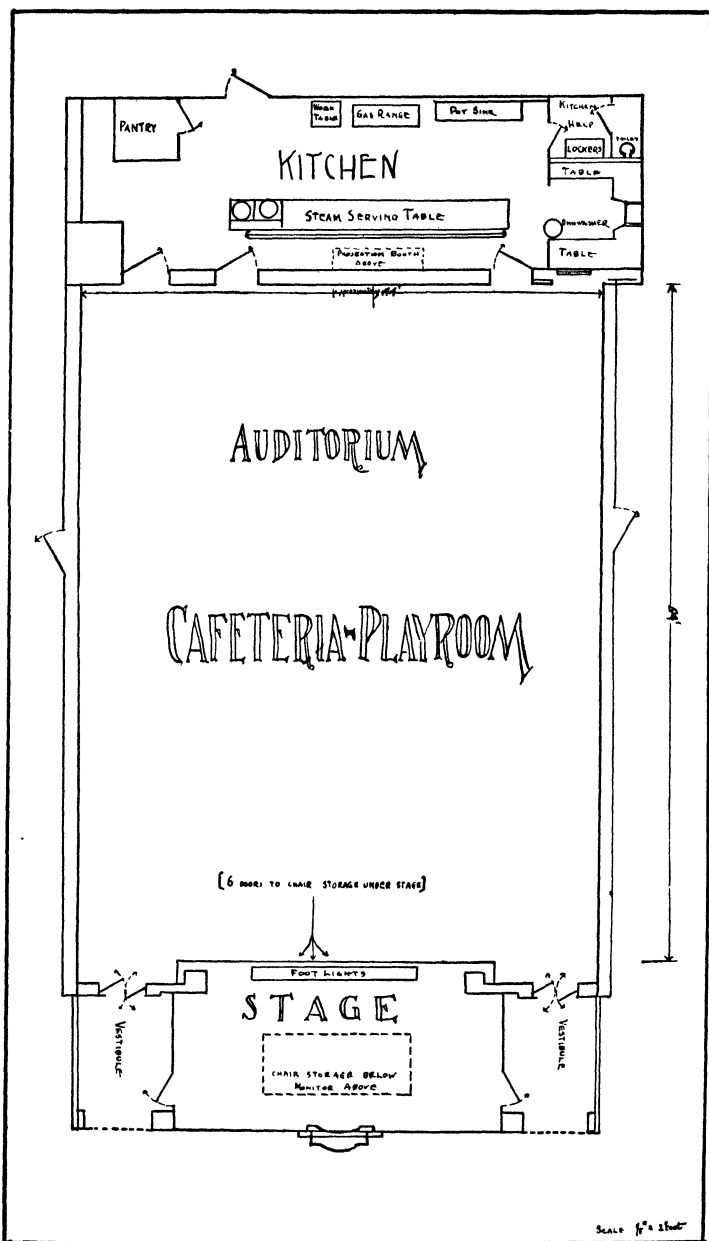
7. *Total Capacity of Plant.* The total capacity of the plant at any one time would be determined by the maximum number using the instructional units at any one time. It would be this total period capacity times the number of periods of the school day. Thus, a plant capable of accommodating one hundred people at one time should be capable of serving seven or eight hundred individuals. This intensive use must be worked out by a method of schedule. This total capacity may be increased by the after-school, evening and vacation use.

B. *Service Unit.* For estimate on space allowance note page 207. In junior and senior high schools the service units are of utmost importance. They consist of the lockers, showers, dressing rooms, rest rooms, and lavatories. These are of special importance because they serve all of the instructional units—indoor gymnasium, special exercise units, and all of the out-of-door spaces. These units are of such importance that many school administrators prefer, in case of a cutting down of facilities, to retain them rather than the indoor instructional units. These units are seldom seen by the public, are seldom shown to visitors, or thought of in their true importance by any one save the instructor in charge. The service units constitute the heart of the physical education plant.

1. *Locker, Shower and Dressing Room Facilities.*⁴⁷ Because of the close relationship of these units they will be considered together. A number of questions of policy must be considered relative to the type of lockers, showers and dressing units. The unit should have adequate light, heat and ventilation. The floors should be of such material that they can be hosed. Drinking fountains and mirrors should be supplied. Entrances and exits should be carefully considered from the standpoint of all instruction units and use on non-school days. A total of twelve square feet per child should be allowed for the peak-load. The table, page 210, indicates the method of valuation from the standpoint of local needs of the various systems:

The first plan involves individual lockers, either of the full

⁴⁷ *The Development of the High-School Curriculum*, National Education Association, Sixth Yearbook, Department of Superintendence, Washington, D. C., 1928, p. 458.



Courtesy of E. E. Oberholtzer.

Combination Auditorium, Cafeteria-Playroom Used in Houston, Texas

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length or half length type. It will probably be necessary to have the full length lockers if they are used for street clothes, including overcoats. Each locker should be provided with a lock. Showers of the open or booth type may be used. Towels may either be brought from home or distributed from the office. The full length locker is a very expensive installation and takes a great deal of room. It also makes any inspection of clothing difficult and provides a convenient place to deposit stolen goods.

The second plan involves keeping the gymnasium clothes in cubical baskets so located that the individual student can procure his basket upon the self-service basis. The individual then takes his basket to a locker where street clothes are left and the lock is transferred from the basket to the locker. Showers and dressing room facilities may be of the open or booth type. This necessitates a towel distributing system. The self-service plan is economic from the standpoint of equipment but provides no inspection of clothes nor servicing of baskets.

The third plan is similar to the second except that the baskets are delivered over a counter by an attendant. At the same time towels may be distributed. This makes inspection of baskets possible but involves an increase of labor. Each basket contains a lock which is placed on a locker containing street clothes during the class period. In this system it is possible to make an inspection of clothes. It is very economic from the standpoint of equipment and space but involves congestion when baskets are taken out or deposited.

The fourth plan is a combination of the second and third which makes possible not only self-service and thus is a time saving device, but also provides for inspection of the baskets (the figure, page 237). In this case towels could either be placed in the baskets or be distributed at the class period. The open shower or booth shower may be utilized. The self-service supervised plan eliminates most of the difficulties of systems two and three and can be operated with or without a full time attendant.

The fifth plan involves baskets arranged on trucks which are pulled out from the wall by the attendant. This system is self-serving and makes possible a very excellent drying system because the room into which the trucks are pushed can be heated and ventilated. System number five, while excellent from the standpoint of drying clothes, is very difficult to supervise because of early arrivals and late comers. By careful check of local conditions it should be possible to determine the most advantageous system. In

a space of five by sixty feet (pages 237 and 239) racks can be provided for over one thousand baskets. The formula for the number of lockers needed in each system is as follows:

Plan Number One: Lockers Needed.

Number of lockers is equal to the total enrollment of the student-body plus faculty plus those needed for community use plus ten per cent.

Plan Numbers Two, Three, Four and Five: Lockers Needed.

Number of lockers needed equals peak-load plus athletic teams peak-load plus ten per cent.

Cubical Baskets Needed.

Total student-body plus faculty plus community use plus ten per cent.

Locker plan number four is easy to administer and is inexpensive. Clothes may be easily inspected and baskets may be served by a part-time custodian. It makes possible efficient supervision of students and a careful check on suits and towels.

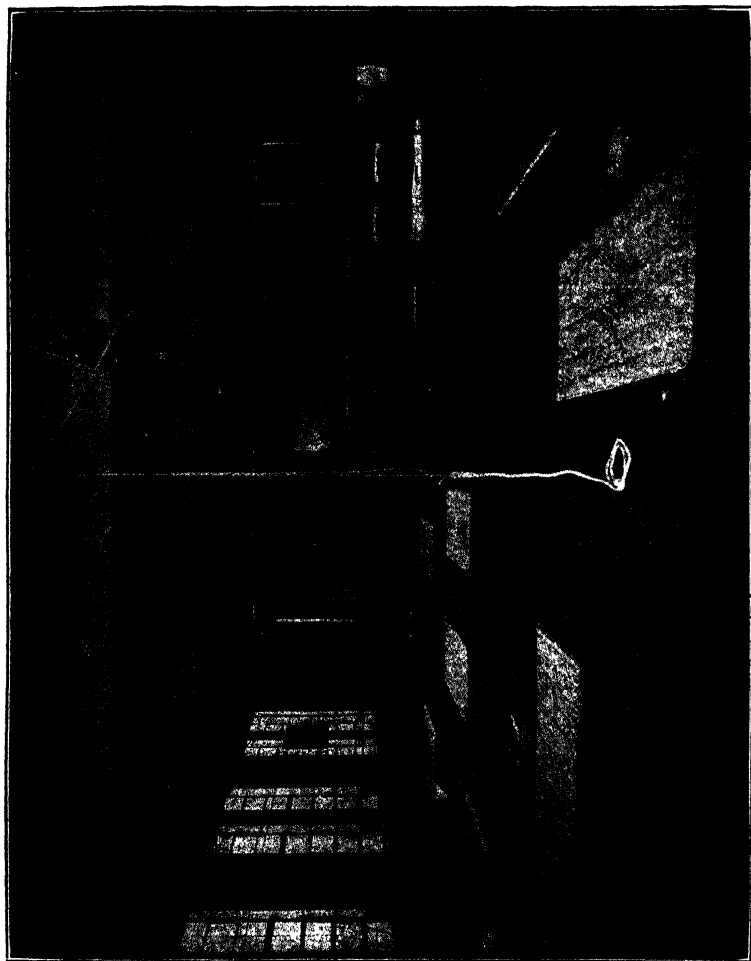
2. Showers.^{48, 49}

a. **Boys' Showers.** Boys' showers are usually arranged in batteries without partitions and with individual control. Great care should be taken to have large outlets so that the water will not back-up and overflow into other parts of the building. A central drain for each group of showers is advisable. Showers should be so arranged that portions of the spray will not fall outside the water proof drainage area. Nine to twelve square feet should be allowed for each shower. The spray should strike at shoulder high and the heads should be firm. Liquid soap should be supplied from built in fixtures. All pipes should be concealed but in easy access for repair.

b. **Girls' Showers.** It has been held in the past that girls demand individual showers either next to their dressing booths or in a special shower room. These are very expensive both from the standpoint of original cost and from that of space. There is a growing feeling that closed shower booths are not necessary and there is considerable evidence that girls prefer open showers and choose to dress in front of their lockers. Shower heads should be so placed to strike the bather at shoulder height. In the light of the present trend it would seem advisable to have twenty per cent of the showers of the booth type and eighty per cent open.

⁴⁸ Louis Jallade, *op. cit.*, p. 184.

⁴⁹ *The Development of the High-School Curriculum*, *op. cit.*, p. 459.



Gymnasium, New York University—Note Simplicity of Equipment

The formula relative to number of showers needed is as follows:

$$\text{Boys} = \frac{\text{Peak-load} - 10\%}{3}$$

$$\text{Girls} = \frac{\text{Peak-load} - 20\%}{2}$$

Thirty showers would then serve a peak-load of a hundred boys while it would take forty to serve the same number of girls. If the open type shower is used the denominator for the girls' formula could be three.

Shower aisles should run at right angles to windows in order to allow light to enter. Ceilings should be sufficiently high so that light could radiate in all directions. Floors should be of cork, rubber tiling or cement with a wooden or rubber cover.

A central shower control system is advocated by many. It has been worked out very successfully in the high school at Somerville, Massachusetts, by Ernst Hermann who describes the system as follows:

Among the up-to-date features are the therapeutic sprays and the flood system that fills the whole shower unit with steam before the pupils enter from the playing floor. The steaming insures a proper temperature for perspiring children coming directly from their exercises, a definite contrast to the chill that so often pervades shower rooms. The therapeutic sprays may be directed against the body without drenching the head. With two sprays to the cubicle, the occupant receives a thorough cleansing. The water begins quite warm but drops in temperature to an invigorating coolness. An automatic control prevents the possibility of scalding. The whole technique of the showers is under the control of the director of physical education and the treatments can be fitted to the real needs of the individual. There are signals, with intervals between them, for entering or leaving the bath. The pupils are instructed as to the proper time for entrance and exit, and the director can fit the tonic bath to the case variations. Climatic conditions are discountable through the flexibility of the technique. A dressing booth and a towel wrap are provided for each girl. The wrap is taken to the shower, hung on the outer wall, and worn back to the dressing booth.

3. *Locks.* The combination lock seems to be the best. With the basket system the student takes his lock from the basket to his locker in which his clothes are deposited while in activity.

4. *Drying Room.* Another important service unit is the drying room for athletic clothes, one hundred to one hundred and

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seventy-five square feet. This should be equipped with hooks and hangers and provided with extra ventilation and heat. The furnace room may sometimes be utilized.

5. *Lavatory.* For boys a minimum size lavatory and toilet room should be eight by ten feet and for girls ten by fifteen feet.

6. *Baskets.* The baskets should be twelve by eighteen inches and ten inches deep with partitions for shoes, soap, etc.

7. *Benches.* Benches should be immovable. They should be so constructed that sweeping and hosing under them are possible.

8. *Laundry.* A laundry room at least ten by twelve feet is advisable in large schools. It should be equipped with Alberine washtubs, gas water heater, clothes dries and electric washing machines. It should be equipped to handle heavy football suits and blankets.

9. *Summary of Space Needs of Service Units.*

BOYS

SUMMARY OF SPACE NEEDS—EXCLUSIVE OF GYMNASIUM FLOOR

Capacity 500—Peak-load: 100

825 Baskets ⁵⁰	$1' + 3' + 1' \times 60'$	= 300	square feet
165 Lockers ⁵¹	$1\frac{1}{2}' \times 4' \times 165'$	= 990	" "
Lavatory	$8' \times 10'$	= 80	" "
Class Room	$25' \times 30'$	= 750	" "
Team Room	$12' \times 20'$	= 240	" "
Three Offices	$8' \times 12' \times 3'$	= 288	" "
Shower Room ⁵²	$30' \times 9'$	= 270	" "
Laundry	$10' \times 12'$	= 120	" "
Special Exercise Room	$15' \times 30'$	= 450	" "
Storage		= 285	" "

Total . . . 3773 " "

Corridors, Walls and Partitions 20% = 754 " "

Grand Total . . . 4527 " "

The economy of space can easily be noted in the plans on pages 237 and 239, by comparing the amount of space necessary for eight hundred and twenty-five full length lockers with the corresponding basket locker system. It should be noted that approximately the same amount of square foot space is necessary for the service units

⁵⁰ Total enrollment of 500 + 50 faculty and employees + 200 evening use + 10%.

⁵¹ Lockers $12'' \times 12'' \times 5'$.

⁵² Peak-load of 100 — 10% ÷ 3 = 30 showers.

as for the indoor gymnasium. The gymnasium plant including service units, the floor and administrative units, classified in terms of unit class rooms, is indicated on page 213.

GIRLS

SUMMARY OF SPACE NEEDS—EXCLUSIVE OF GYMNASIUM FLOOR

Capacity 500—Peak-load: 100

825 Baskets	$1' + 3' + 1' \times 60'$	=	300	square feet
40 Showers—Dressing Units	$4' + 3' + 4' \times 3' \times 40'$	=	1320	" "
165 Lockers	$1\frac{1}{2}' \times 4' \times 165'$	=	990	" "
Lavatory	$10' \times 15'$	=	150	" "
Class Room	$25' \times 30'$	=	750	" "
Three Offices	$8' \times 12' \times 3'$	=	288	" "
Special Exercise Room	$15' \times 30'$	=	450	" "
Rest Room	$10' \times 12'$	=	120	" "
Storage		=	285	" "

Total...4653 " "

Corridors, Walls and Partitions 20% = 930 " "

Grand Total ⁵³...5583 " "

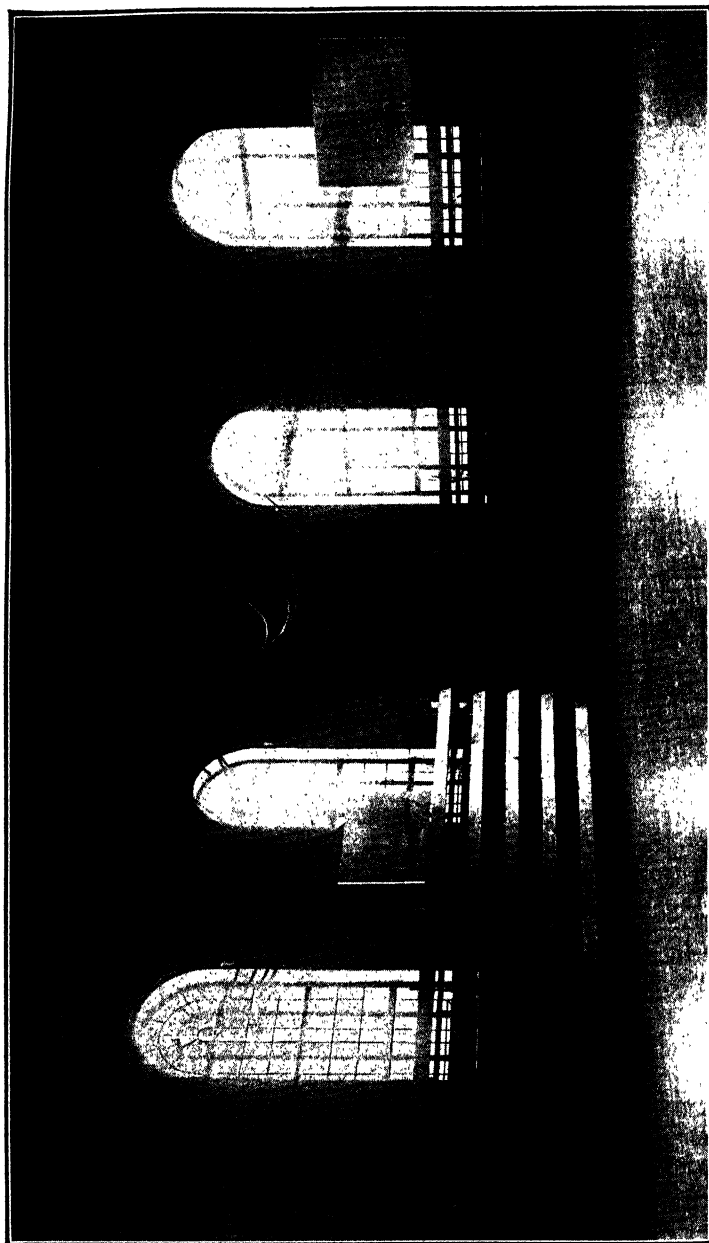
C. Administrative Units.

1. *Office.* A small eight by ten-foot room should be provided for each physical director together with an outer office for the general public and students. The private offices are necessary because the growing phase of the work of a director of physical education is consultation with students, often requiring private interviews. The offices should be conveniently located from the standpoint of supervision, service units, gymnasium floor and athletic fields. It should be equipped with shower and toilet facilities for instructors; desks, bookcases, files, chairs, and closets for equipment and supplies. The storage space in the offices should be so arranged that evening or summer recreational directors could have their supplies under lock and key without any possibility of disturbing supplies and equipment used by other people.

2. *Store and Supply Rooms.* Adequate store and supply rooms should be provided, equipped with shelves and delivery counter. Provision should also be made for an equipment room near the gymnasium for purposes of storing apparatus and supplies not in daily use.

3. *Rest Room.* A rest room should be provided in the girls'

⁵³ Subtract about 800 square feet if open showers are used.



Courtesy of A. G. Spaulding & Bros.

Showing Folding Bleachers

administrative unit, large enough to accommodate two cots per one hundred students. Room for an emergency cot should also be provided in the boys' unit.

4. *Health Unit*.⁵⁴ This unit should combine the examination, first aid, dental and nurses' rooms. It should be conveniently located (suggestions plan on pages 245 and 246). It should have one room at least twenty-two feet long for eye examinations. It should also contain a waiting room, private office, shower, dressing room, toilet and additional room as required by service.^{55, 56}

a. Equipment. The health unit should contain a cot, hot and cold, foot-pedal water, faucets, first aid cabinet, sitz tub, eye chart, mirror, tables, chairs, files that may be locked, examining table, small instrument cabinet, sterilizer, stools, foot-pedal waste can and towels and soap.

V. ELEMENTARY SCHOOL PHYSICAL EDUCATION PLANT

The physical education plant in the elementary schools is even more important than in the junior and senior high schools. Younger children do not perspire so freely and their activities require less space. The plant will therefore need less service units and less per capita area. Space needs should not be stilted, however, for the amount of big muscle activity needed by the elementary school child is greater than at any other age.

A. Instructional Units.

1. *Indoor Gymnasium*. Several plans are possible for providing indoor floor.

a. Independent Unit. An independent gymnasium unit of forty by sixty feet provides a very excellent indoor unit. This constitutes a little more than a double class room.

b. Gymnasium-Auditorium. It is possible to combine the gymnasium and the auditorium. Where the auditorium is not in constant use this is an economy. The specifications for such a combination, prescribed in Oakland, California, are as follows:

⁵⁴ J. H. Berkowitz, *Standardization of Medical Inspection Facilities*, Bulletin No. 2, Department of the Interior, U. S. Government Printing Office, Washington, D. C., 1919.

⁵⁵ James Frederick Rogers, *Schools and Classes for Delicate Children*, Bulletin No. 22, Department of the Interior, U. S. Government Printing Office, Washington, D. C., 1930.

⁵⁶ "The Administration of the Medical Inspection Law," *Health Bulletin*, No. 1, University of the State of New York Press, Albany, 1930.

TABLE XXVII⁵⁷

STANDARDS FOR PHYSICAL EDUCATION UNIT, ELEMENTARY SCHOOL

	<i>Area</i> (sq. ft.)	<i>Per Cent of</i> <i>Total Area</i>	<i>Standard Class</i> <i>Room Units</i>	<i>Available</i> <i>Class Rooms</i>
Assembly—Capacity 500	5,775	14.05	7½	1
Play Hall—Balcony, motion picture booth 8' × 9', stage				
Pool ⁵⁸	1,540	3.74	2	1
	<hr/> 7,315	<hr/> 17.79	<hr/> 9½	<hr/> 2

c. *Gymnasium-Auditorium-Cafeteria.* This is an economic combination of facilities and can be done very practically (plan of Houston, Texas, page 243). In all special rooms the height should be fifteen feet as a minimum. This will be adequate for elementary school basket ball, volley ball and indoor baseball. The basket ball goals should be eight feet from the floor.

d. *Equipment.*

(1) *Game.* The floor should be marked for volley and net ball, indoor baseball, relays and game elements.

(2) *Movable Equipment.* Several vaulting boxes and horizontal bars, with traveling and flying rings should be sufficient.

(3) *Miscellaneous Equipment.* This should include small mats; two dozen Indian clubs, dumb bells, and wands for relays and stunts; piano and victrola.

2. *Pool.* The elementary school presents the age at which swimming should be taught. The installation of a swimming pool could well be afforded if it could be given wide community use during the evening and vacation periods. For detail construction of the pool see *Organization and Administration of Playgrounds and Recreation*, by author.

3. *Yards.*

a. *The Playground.*^{59, 60, 61} The most important instructional unit is the playground. A count in Chicago indicated that children could be on the playground all but ten days of the school year if

⁵⁷ *Oakland Public Schools*, Book of Standards for the Erection of School Buildings, Part I, Board of Education, Oakland, California, May, 1926, p. 52.

⁵⁸ Pool added by author.

⁵⁹ Charles J. Storey, "Modern Trends in the Design and Equipment of Public School Playgrounds," *The American School and University*, American School Publishing Corporation, New York, 1929-1930, p. 223.

⁶⁰ *Play Areas, Their Design and Equipment*, prepared by Playground and Recreation Association of America, A. S. Barnes and Co., New York, 1928.

⁶¹ N. P. Neilson and Winifred Van Hagen, *Physical Education for Elementary Schools*, A. S. Barnes and Co., New York, 1930, pp. 49-63.

there is a good surface.⁶² The figure on page 231 indicates approximately the area needs for kindergarten and primary grades. The space needs for the upper elementary grades are considerably greater (pages 231 and 252). This area should not be less than five acres. The following suggests necessary equipment:

<i>Item</i> ⁶³	<i>Standard Unit</i>	<i>Estimated Price Per Stand. Unit</i>
Assembly, Girls'		
Unit No. 1—Gym Frame	One	212.00
Unit No. 2—Traveling Rings	One	124.50
Unit No. 3—Horizontal Ladder	One	83.50
Assembly, Kindergarten		
Unit No. 1—Small Swings	One	65.00
Unit No. 2—Small Slide	One	95.00
Unit No. 3—Horizontal Bar	One	28.00
Backstop, baseball (large), 3 sections	One	43.00
Backstop, baseball, portable (small)	One	27.00
Backstops, basketball	Four	17.00
Bar, cross, for soccer goal	Two	3.50
Board, playground bulletin, glass front	One	12.00
Box, sand, 9'x9'	One	10.00
Box, sand, 12'x12'	One	14.15
Court, handball (double)	One	125.00
Court, handball (single)	One	92.50
Giant Stride, or Maypole, consisting of 6 ropes with galvanized iron pipe pole and head	One	30.00
Gym Frame, boys'	One	110.00
Linograph	One	1.40
Posts, basketball	Four	25.00
Posts, soccer goal	Four	8.00
Posts, tennis	Two	2.20
Posts, volley ball	Four	3.30
Posts, hockey	Two	8.00
Rings, basketball	Four	11.50
Standards, jumping	One Pair	3.50

B. Service Units. The elementary school will not need elaborate service units like those in the high school. The following, however, are the minimum essentials of this unit:

⁶² W. N. Sellman, "The Problem of Adequate Elementary School Playgrounds," *The American School and University*, American School Publishing Corporation, New York, 1928-1929, p. 195.

⁶³ Suggestion of C. L. Glenn, Los Angeles, California.

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1. *Washrooms.* Classes should have easy access to the washrooms of the building after the activity period. These should be of sufficient size and equipped with hot water, soap and towels, so that the children may thoroughly wash before returning to the class room.

2. *Coat Room Accommodations.* Provision should be made where coats and sweaters may be hung while the children are attending the activity period.

3. *Provision for Soft Soled Shoes.* Provision should be made for children to change from street shoes to soft soled shoes and the latter should be stored between classes.

In the kindergarten and primary grades provision for coats and shoes may be provided in the class room. For the upper elementary where a special teacher is employed provision should be made for self-service baskets or small cubical lockers.

C. Administrative Unit.

1. *Office.* An office, eight by ten feet, should be provided for each special physical director.

2. *Health Service Unit.* A room eight by twenty-two feet with shower and lavatory would serve this purpose. It should contain a wash bowl having hot and cold water. Examinations may be made behind a folding screen. A dental room should be added if such service is available.

a. *Equipment.* The health unit should be equipped with a cot examining table, small instrument cabinet, sterilizer, stools, foot pedal waste can, first aid cabinet, desk, chair, cupboard, mirrors, files that lock, soap and towels.

VI. THE PLATOON SCHOOL

A. *Place.* Platoon organization requires a special physical education plant.⁶⁴ This should be two indoor play rooms and a well surfaced play yard. In the elementary play rooms forty by sixty feet have proved quite satisfactory. Where possible the height of the ceiling should be fifteen feet. Special provision should be made to take care of coats and shoes, as under the platoon plan it is not possible to leave them in the class room nor store the gymnasium shoes there when they are not in use. Small cubical lockers or self-service baskets should be provided for this purpose. A small basket will allow the storing of shoes and simple equip-

⁶⁴ Homer Davis, "Principles of Planning Buildings for Platoon Schools," *The Platoon School*, National Association for the Study of the Platoon or Work-Study-Play School Organization, Washington, D. C., June-July-August, 1929, p. 53.

ment when the pupil is not attending classes. In upper elementary grades it is quite essential that five to twenty-five showers be installed both for the boys and girls.

The high school plant should follow suggestions made on page 212. Layouts are shown on page 214. The playgrounds should be laid out according to suggestions given on page 229. They should be so surfaced that it would be possible for activities to be carried on at all times when it is not actually raining. The surface suggested by the platoon schools of Detroit is as follows:^{65, 66}

Preparation of Grounds: All grass, weeds, or humus shall be removed from playground areas and if fill is necessary only good soil or cinders free from dirt or ashes shall be used. Any excavation or fill necessary to obtain the required grade shall be done as directed. All surplus earth shall be removed when and as directed.

First Course: Cinders not to exceed two inches in diameter and free from dirt or ashes shall be spread to a depth of three inches, wet and rolled with a suitable roller until no wave forms in front of roller. The finished grade of this course shall parallel the finished grade of the finished surface. This course shall be wet before the second course is applied.

Second Course: This course shall consist of two and one-half inches of limestone screenings and dust spread evenly over the first course. This course shall be rolled with a suitable roller and sprinkled between rollings until a smooth, compact surface is obtained.

Third Course: This course shall consist of approximately one-fourth inch of coarse, sharp sand, free from dirt and dust.

Equipment and supplies follow very closely the list given for the schools.⁶⁷

There seems to be a consensus of opinion that, from the standpoint of the cost of the building as well as the cost of instruction, the platoon school is more economical than the school run upon traditional lines.⁶⁸

⁶⁵ "Surfacing Playgrounds for Platoon Schools," *The Platoon School*, National Association for the Study of the Platoon or Work-Study-Play School Organization, Washington, D. C., June-July-August, 1929, p. 86.

⁶⁶ The Brown-Velvet Surface is recommended. A. D. Brown, Peabody College, Nashville, Tennessee.

⁶⁷ Stanley H. Holmes, "Buildings and Equipment for Special Activities in Platoon Schools," *The Platoon School*, National Association for the Study of the Platoon or Work-Study-Play School Organization, Washington, D. C., March-April-May, 1930, p. 27.

⁶⁸ *The Platoon School*, National Association for the Study of the Platoon or Work-Study-Play School Organization, Washington, D. C., December, 1928.

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VII. RURAL CONSOLIDATED SCHOOLS ⁶⁹

The physical education plant for the rural consolidated schools follows the general principles laid down in the previous discussion. It should be remembered that from the standpoint of instructional units as much space is required for fifty students as for five hundred students. In a school of five hundred the peak-load will be distributed over five or six periods while in a school of fifty the group will be handled as a unit. The rural consolidated schools should be planned with special reference to community use, and should adopt as many suggestions as possible from the high and elementary schools.

TABLE XXVIII
SIZE OF HIGH SCHOOL GROUNDS
IN CALIFORNIA ¹

Year	Number of schools		Less than 3 acres	% acres	5/10 acres	10/15 acres	15/20 acres	More than 20 acres
1923-24	302	Number	45	54	99	50	27	27
		Per cent	15	18	33	16	9	9
1924-25	327	Number	48	44	111	56	31	37
		Per cent	15	14	34	17	9	11
1925-26	337	Number	42	43	117	58	38	39
		Per cent	12	13	35	17	11	12
1926-27	353	Number	36	41	130	67	37	42
		Per cent	10	11	37	19	11	12
1927-28	357	Number	28	39	120	69	45	56
		Per cent	8	10	34	19	13	16

TABLE XXIX
PER CENT OF SCHOOLS WITH GYMNASIUM
IN CALIFORNIA ¹

Year	1921	1922	1924	1925	1926	1928
Total number	303	310	324	333	338	346
Number having gymnasiums	89	123	185	207	214	330
Per cent	29	40	57	62	63	66

¹ *Biennial Reports of the State Supervisor of Physical Education*, State Department of Education, Sacramento, California, 1922 to 1930, p. 7.

VIII. ONE OR TWO ROOM RURAL SCHOOLS

The small rural school will have to depend upon an adequately equipped play yard, varying the teaching program in accordance with the weather.⁷⁰

⁶⁹ Marie M. Ready, "Games and Equipment for Small Rural Schools," *Physical Education Series*, No. 8, Department of Interior, Bureau of Education, Washington, D. C., 1927.

⁷⁰ *Ibid.*

Schools having no gymnasium should have as a minimum the following list of equipment and supplies:

Equipment:

- Chinning bars—5' 6"; 6' 6"; 7' 6" high
- Sand box—10' \times 20'
- High jump pit—8' \times 14'
- Broad jump pit—6' \times 20'
- Volley ball court—30' \times 60'
- Soccer-Hockey field—150' \times 300'
- Basketball court—45' \times 70'
- Circle game areas—50' diameter
- Straight-a-way—60 yards
- Baseball diamond—45' bases
- Baseball diamond—90' bases if possible
- Apparatus sets if possible (page 253).

Supplies:

- Bounce balls
- Baseballs
- Baseball bats
- Soccer balls
- Playground baseballs
- Indoor baseball bats
- Volley balls
- Volley ball nets
- Scales and measuring rod
- Phonograph
- First aid kit
- Indian clubs and wands for relays
- Hockey sticks
- Hockey balls

In Missouri a kit for rural schools consists of one volley ball and net, two playground balls and four bats. These cost from \$7.50 to \$10.00 according to the grade of material.

IX. SUPPLIES FOR THE PHYSICAL EDUCATION PLANT

Supplies used in the gymnasium and on the athletic fields are the tools of instruction. The cost of such supplies should be compared to the cost of text books, paper, chalk, etc., in other subjects. It is impossible to teach a modern program without such tools.

A. Comparative Cost. The cost of physical education supplies in the past has been much less than that of most other subjects in spite of the fact that physical education is required of all, while

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only a small percentage of students elect some of the activities with which it is compared (table on page 221). The per capita cost of physical education supplies shows even more the small amount of money spent for such.

B. Athletic Supplies.

1. *Junior and Senior High Schools.*

a. Required Activity. The board of education should provide for supplies in the regular supply budget. It is necessary to allocate this by schools in two ways: A minimum for each school regardless of size should be established and become the base budget. If this base budget is set for schools of five hundred then a per capita should be added for each pupil over this amount. The latter procedure is necessary because many items are needed by a school regardless of size, for example, a stop watch, steel tape, high jump standards, etc.

b. Optional Activity. There is some controversy as to how athletic supplies used for inter-school activities should be financed. Inasmuch as these activities are a phase of education the supplies should be purchased in the same way as others. Any other procedure will further the unfortunate distinction between athletics and education.

c. Standards for Ordering Supplies. Some school systems establish minimum standards as follows:

STANDARD FOR ORDERING FOR HIGH SCHOOLS

HIGH SCHOOL OF 1200 IS USED AS THE UNIT OF STANDARDIZATION

Base Balls, Official	18 per year
Base Ball Bats, Outdoor	12 per year
Volley Balls	12 per year
Soccer Balls	12 per year
Basket Balls, Welded Seam	12 per year
Basket Balls, Indoor, Official	8 per year
Foot Balls	12 per year
Hand Balls	24 per year
Playground Balls, 9 inch	24 per year
Playground Balls, 12 inch	12 per year
Playground Bats	6 per year
Bases, Filled	2 sets per year
Volley Nets	12 per year
Tennis Nets	2 per year
Tape Lines, 50 Foot	2 per year
Inflators	2 per year
Lacing Needles	4 per year
Extra Rawhide Laces	24 per year

Extra Shoestring Laces	12 per year
Basket Ball Bladders	as needed
Soccer Ball Bladders	as needed
Volley Ball Bladders	as needed
Tennis Racquets	4 per year
Catcher's Masks	1 per school
Chest Protectors	1 per school
Catcher's Mitts	1 per school
Red Paper Cambric	6 yards per school (for marking teams)
Basket Ball Goal Nets	4 per year (for indoor use only)
Indoor Bases	2 sets per year
Archery Bows	6 per year
Arrows	36 per year
Archery Targets	3 per year
Cross Bars	6 per year
Golf Sets	6 per year
Golf Balls	72 per year
Lime	12 sacks per year
Horse Shoes	4 sets per year
Hockey Sticks	24 per year
Hockey Balls	12 per year
Pistols	2 per year
Shot (8 lbs.)	1 per year
Shot (12 lbs.)	1 per year
Speedballs	4 per year
Cage Balls	2 per year
Score Books	24 per year
Tennis Rackets	24 per year
Tennis Balls	48 per year
Tenikoit	4 sets per year
Vaulting Poles	2 per year
Water Polo Balls	6 per year
Whistles	12 per year
Watches—stop	2 per year
Watches—game times	2 per year
Tape—bicycle	24 rolls per year
Paddle Tennis	6 sets per year
Miscellaneous	\$100 per year

Special order blanks are printed showing the standards, supplies on hand, and supplies needed to bring the yearly amount to standard.

Los Angeles on the other hand establishes a budget and allows schools to make a selection. This plan has many advantages. The list from which choice may be made is as follows:

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<i>Item</i>	<i>Standard Unit</i>	<i>Estimated Price Per Stand. Unit</i>
Awl, repair, Speedy Stitcher	Each	.33
Ball, base (hard)	Each	.87
Ball, basket (outseam)	Each	5.00
Ball, basket (regular)	Each	6.25
Ball, cage, 24" complete	Each	18.00
Ball, foot (Rugby)	Each	4.75
Ball, hand	Each	.15
Ball, indoor, 9"	Each	.72
Ball, indoor, 12"	Each	.92
Ball, medicine, 6 lb.	Each	4.50
Ball, medicine, 9 lb.	Each	6.82
Ball, soccer	Each	4.25
Ball, tennis	Each	.40
Ball, volley	Each	3.75
Bean Bag	Each	.08
Bar, cross, bamboo	Each	.22
Bases, indoor, filled (3 to set)	Set	3.50
Bases, indoor, unfilled (3 to set)	Set	1.50
Bases, outdoor, filled (3 to set)	Set	7.00
Bat, baseball, outdoor	Each	1.00
Bat, indoor	Each	.45
Beeswax (1 oz.)	Cake	.10
Bladder, basket ball	Each	.70
Bladder, cage ball	Each	4.50
Bladder, football (Rugby)	Each	.60
Bladder, soccer ball	Each	.55
Bladder, volley ball	Each	.53
Cable, tennis net, 46', eye on one end	Each	1.50
Cards, plain, white, 5"x8" (100 to pkg.)	Pkg.	.30
Card, record, High School Form #819, buff.	Each	.004
Card, record, Junior High School Form #820, buff.	Each	.004
Cement, rubber (1 oz.)	Tube	.05
Charts, posture	Set	.50
Cord, for jumping standards, weights at ends.	Each	2.50
Gloves, boxing, 10 oz. (4 to set)	Set	8.00
Guides, alphabetical, buff, celluloid tabs, 5"x8"	Set	1.00
Horseshoes (4 to set)	Set	2.00
Lace, cloth, shoe	Each	.02
Lace, rawhide	Each	.04
Lime, 90# air slaked	Sack	.70
Line, Mason chalk (½ lb.)	Ball	.32
Needle, Glovers #2	Each	.01

<i>Item</i>	<i>Standard Unit</i>	<i>Estimated Price Per Stand. Unit</i>
Needle, lacing, handled	Each	.06
Needle, sailmakers #00	Each	.04
Net, basket ball	Each	.30
Net, cage ball	Each	4.00
Net, tennis	Each	5.00
Net, volley	Each	1.29
Palm, sailor's	Each	.65
Pole, vaulting, 14'	Each	6.23
Pole, vaulting, 16'	Each	6.28
Pump, large ball	Each	.90
Racket, tennis	Each	2.65
Rope, ½", manila (13 ft. to lb.)	Lb.	.21
Rope, ¼", manila (55 ft. to lb.)	Lb.	.20
Rope, ¾", manila (6 ft. to lb.)	Lb.	.23
Rope, 1½", manila (2 ft. to lb.)	Lb.	.25
Rope, ¼"	Ft.	.007
Rope, ½"	Ft.	.015
Rope, ¾"	Ft.	.04
Rope, 2"	Ft.	.28
Sandpaper, #1	Sheet	.01
Tape, friction, ¾"—½#	Roll	.14
Tape line, 25 ft. linen	Each	.38
Tape line, 100 ft. linen	Each	.96
Thread, 6 cord, tan silk finish	Spool	.50
Thread, linen #25 white	Spool	.08
Whistle, traffic, Spalding #7 or equal	Each	.19
Yarn, white, 1 oz.	Ball	.22

SAND

For South of Manchester Delivery	Cu. yd.	1.75
For North of Manchester Delivery	Cu. yd.	2.45
For Sawtelle and Palms Delivery	Cu. yd.	3.50
For San Fernando Delivery	Cu. yd.	3.00

SHAVINGS

For North of Manchester Delivery	Load	5.00
For South of Manchester Delivery	Load	10.00
For Sawtelle and San Fernando Delivery	Load	10.00

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2. *Elementary Schools.* In the elementary schools the distribution of supplies is not simple. These supplies must be made available to all room teachers for use at laboratory and instructional periods. The best suggestion seems to be to allocate the supplies to the rooms by units. These are kept in the rooms by the teachers. Several rooms can form a unit and hence use the same supplies. A suggestion for such a plan is as follows:

FIRST AND SECOND GRADES

Two Rooms Are Used as the Unit of Standardization

Bounce Balls	4 per year
Volley Balls	3 per year

THIRD AND FOURTH GRADES

Two Rooms Are Used as the Unit of Standardization

Volley Balls	3 per year
Soccer Balls	3 per year
Playground Balls, 12 inch	6 per year
Playground Bats	3 per year
Indoor Bases	1 set per year (3 to set)
Rubber Home Plates	1 per year

FIFTH, SIXTH, SEVENTH AND EIGHTH GRADES

Four Rooms Are Used as the Unit of Standardization

Soccer Balls	4 per year
Volley Balls	3 per year
Playground Balls, 12 inch	6 per year
Playground Bats	4 per year
Playground Balls, 9 inch	6 per year
Basket Balls, Welded Seam	4 per year
Hand Balls	6 per year
Indoor Bases	1 set (of 3) per year
Rubber Home Plates	1 per year
Red Paper Cambric	3 yards per year (for marking teams)
Volley Ball Nets	1 for every court
Tape Lines, 50 foot	2 per year
Baseballs, Official	6 per year, where grounds permit
Baseball Bats	3 per year, where grounds permit
Catcher's Masks	1 per school, where grounds permit
Catcher's Mitts	1 per school, where grounds permit
Chest Protectors	1 per school, where grounds permit
Repair Kit	Fill as needed
Outdoor Bases, Filled	1 set per school, where grounds permit
Tennis Nets	1 per court

Los Angeles offers selection from the following:

<i>Item</i>	<i>Standard Unit</i>	<i>Estimated Price Per Stand. Unit</i>
Awl, repair, Speedy Stitcher	Each	.33
Ball, basket	Each	6.00
Ball, hand	Each	.15
Ball, indoor, 9"	Each	.72
Ball, indoor, 12"	Each	.92
Ball, indoor, 14"	Each	1.10
Ball, rubber, 5"	Each	.25
Ball, soccer	Each	4.25
Ball, tennis	Each	.325
Ball, tennis, sponge rubber	Each	.23
Ball, volley	Each	3.75
Bar, cross, bamboo, for jumping standards	Each	.22
Bases, indoor, 3 to set	Set	1.29
Bat, indoor	Each	.40
Bean Bag	Each	.08
Beeswax, 1 oz.	Each	.10
Bladder, basketball	Each	.53
Bladder, soccer ball	Each	.50
Bladder, volley ball	Each	.40
Cement, rubber (tube), 1 oz.	Each	.04
Charts, posture	Set	.31
Checkers	Set	.20
Checker Board	Each	.75
Kit, repair, consisting of spool heavy cotton thread, 1 pkg. sewing needles, 1 awl with needles, 3 cutting needles, 1 sheet fine sandpaper, 12 rubber patches, 1 bottle cement, 2 lacing needles, 3 rawhide laces, 1 piece beeswax, 1 oz. tar, 1 spool heavy linen thread and 1 large pump for balls. Put up in can- vas roll	Each	4.25
Laces, leather, 28"	Each	.023
Lime, 90-lb. sack, approx.	Each	.70
Needle, lacing	Each	.055
Needle, sewing, Glover's No. 2	Each	.01
Net, tennis	Each	5.00
Net, volley ball	Each	1.29
Pump, large playground	Each	1.00
Quoits, Rope (set)	Set	.80
Racket, tennis	Each	2.40
Rope, jumping, single, 7'	Each	.12
Rope, jumping, single, 16'	Each	.60

<i>Item</i>	<i>Standard Unit</i>	<i>Estimated Price Per Stand. Unit</i>
Shavings, screened—		
For City Delivery	Load	5.00
For Valley and Harbor	Load	10.00
Tape, friction (roll)	Roll	.14
Tape Line, 100', linen	Each	.96
Tape Line, 25', linen	Each	.38
Thread, linen, No. 25, white (spool)	Spool	.08
Thread, 6 cord (spool), tan	Spool	.50
Whistle, playground	Each	.19

C. Playground Supplies. Additional supplies will have to be ordered for the after school and summer playgrounds in accordance with the use. As a rule these supplies should be ordered and distributed without reference to the school instructional supplies. Table on page 269 shows the small cost per game of the activities organized on the school playgrounds:⁷¹

TABLE XXX
RANK OF PER GAME COST OF PLAYGROUND SUPPLIES

<i>Rank</i>	<i>Per Game Cost</i>	<i>Activity</i>
1	\$00.5100	Soccer
2	.4600	Basket Ball
3	.1100	Hand Ball
4	.0670	Football
5	.0660	Volley Ball
6	.0620	P. G. Ball
7	.0200	Paddle Tennis
8	.0180	Tennis
9	.0096	P. G. Golf
10	.0086	Croquet
11	.0064	Ring Toss
12	.0052	Caroms
13	.0024	Handball
14	.0022	Checkers
15	.0014	Ping Pong
16	.0010	Horse Shoes

⁷¹ Carl Frederick Trieb, *The Determination of the Cost of Supplies in Civic Center Summer Playgrounds*, A Study presented to the Department of Physical Education, University of Southern California, May 24, 1930. p. 122.

A summary of the service is given by Trieb:⁷²

Almost half a million children were catered to by these ninety-three grounds during a period of less than ten weeks. In ten weeks these half million children actually consumed less than six thousand dollars worth of athletic supplies. In doing so they played ninety-four thousand games of checkers, eighty-one thousand games of caroms, seventy thousand games of tennis, forty-nine thousand games of horse shoes, forty thousand games of ping pong, thirty-seven thousand games of paddle tennis, thirty-three thousand games of croquet, twenty-five thousand games of handball, fourteen thousand games of baseball, thirteen thousand games of playground golf, eight thousand games of ring toss, six thousand games of volley ball, one thousand games of basket ball, six hundred games of hard baseball, five hundred games of football and sixty games of soccer, all for an average cost of less than one cent per pupil for athletic supplies for the entire summer and for an average of about five cents per game, excluding soccer.

D. Towels. One of the most essential and yet the most neglected elements in public school administration is the furnishing of towels in wash rooms and for showers. Several plans are possible:

1. *Each Student Provides His Own Towel.* This is unsatisfactory as it requires constant supervision to insure cleanliness. It is expensive as experience has shown that children do not take the responsibility of returning the towels to their homes.

2. *School Provides Towels.* This might be done by a special fee which each pupil pays as a part of the yearly activity fee which many schools have. In some cases the board of education supplies the towels. The latter is the plan which should be followed in an educational procedure.

3. *Cost of Towel Service.*⁷³

- a. Towels may be rented on a basis of four cents per towel which cost absorbs a twenty per cent yearly loss.

- b. The school may own the towels and send them out to be laundered for one and one-half cents each. A twenty per cent loss may be expected plus about a twenty-five per cent replacement for use. The school must own three times the weekly peak-load of use. The cost per day is two dollars and forty cents, and the towels may be expected to last eighteen to twenty-four months, being laundered twice a week. The cost per use on this basis is three and one-half cents.

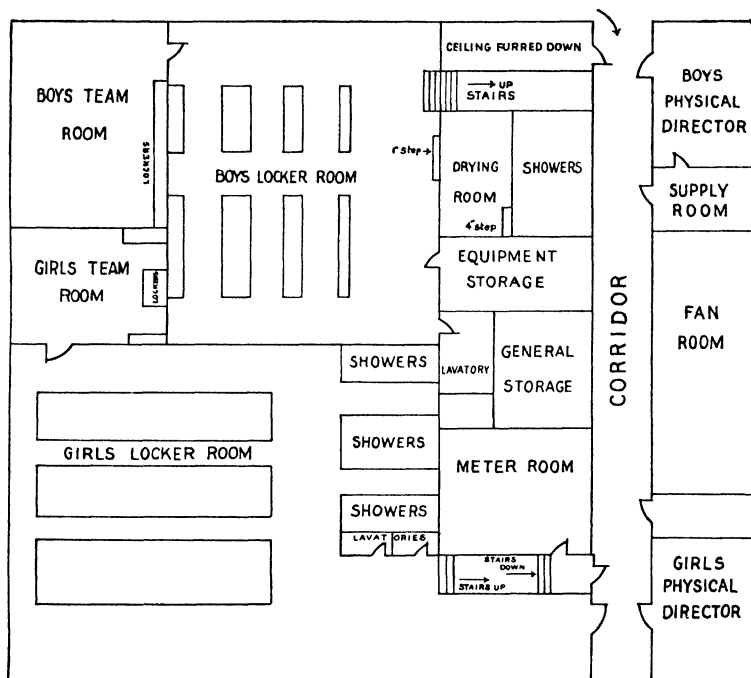
⁷² *Ibid.*, p. 124.

⁷³ Costs are figured on a basis of towels twenty-four by forty inches.

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c. Schools may own and launder towels. When the institution is large it is economical to operate a laundry thus cutting the cost to approximately three cents per use.

d. Paper bath towels are now on the market which have proven quite satisfactory. These may be purchased for about one



Walker & Norwick, Architects, Dayton, Ohio.

Service Unit, Consolidated School, Osborn, Ohio

cent each. The plan can be operated at this price only when there is a very large enrollment and limited use. In public schools where physical education is required five times per week and where a clean towel is furnished daily it is doubtful if the suit and towel could be furnished for less than fifteen to eighteen dollars per year.

E. Suits. In many institutions the school owns the gymnasium and swimming suits and charges a yearly fee. In colleges a four-year fee is charged. Swimming suits may be expected to stand one hundred launderings and cost about two cents for each use. Some universities have been able to set a very low suit and towel yearly

fee. Suits and towels are furnished throughout the four years although the physical education requirement is two periods a week for one or two years. The University of California⁷⁴ fee is five dollars for the four years; the University of Oregon ten dollars; while at Rice Institute the fee is sixteen dollars.

The following represents the four-year fee with amount returnable on withdrawing, as furnished by Florence D. Alden:

As to fees, our students *pay \$10.00 when they enter* as freshmen. This entitles them to full use of our equipment for four years. If they leave the University before the end of the four years, they are given a rebate on the following plan:

	<i>End Fall</i>	<i>End Winter</i>	<i>End Spring</i>
	<i>Term</i>	<i>Term</i>	<i>Term</i>
Fee, \$10.00			
First Year	\$7.50	\$7.00	\$6.00
Second Year	5.00	4.00	3.00
Third Year	2.50	2.00	1.50
Fourth Year	1.00	.50	.00

PROBLEMS

1. You are the director of physical education in a high school which is in the process of erecting a new building. In the original provisions for the building you had secured a gymnasium floor 60 by 90 feet and an equal amount of floor space for lockers, showers and offices. You had also a ten acre yard which is well equipped with tennis courts, basketball courts, and hockey and soccer fields. The entire play-yard has an excellent surface. It is necessary for you to make a twelve per cent reduction in the cost of your plant. Where will you cut?

2. You have been asked by the consulting architect to recommend a locker and shower system for a school of two thousand in which the area devoted to physical education must be cut to the lowest possible limit. What would you recommend?

3. You are the chairman of the directors of physical education for women, in the high schools, in a city of one million. The director of physical education, a man, has recommended that in all new high schools eighty per cent of the shower and locker facilities be of the open type, similar to those used by the boys, and twenty per cent of the booth type. The superintendent has asked your opinion. What would you say?

4. You are the principal of an elementary school. You have been allowed \$25,000 for the erection of a small play room or for the surfacing of your five-acre playground. At the present time the playground is not fit to be

⁷⁴ Frank Kleeberger, "A Rental System for Administration of Athletic Clothing," *The Journal of Health and Physical Education*, Vol. I, No. 8, October, 1930.

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used a great deal of the time because of the moisture. The surface that could be provided with the allotment would enable the children to play in the yard approximately nine out of ten days during the year. Which would you take?

5. You have been asked by the superintendent of schools to make a comparison between the cost of supplies in physical education and those in chemistry and English. How would you proceed?

6. A principal of an elementary school writes you, as the director of physical education in the city that, although he has adequate supplies in his office, the elementary teachers do not and cannot, because of time limitations, come to his office to get them either for the recess periods or for the required instruction period in physical education. What would you advise?

7. The district-attorney has ruled that it is illegal to spend school money for the purchase of athletic supplies, including uniforms, in connection with inter-school athletics. He has indicated that he is open-minded if he can be persuaded that this is a phase of physical education. How would you answer him?

PRINCIPLES

1. The physical education plant should be thought of in terms of instructional, administrative and service units.

2. Because of the expense involved in providing an adequate physical education plant it should be used to its utmost capacity both by the school and the community.

3. Lockers and showers serve all instructional units and hence become of paramount importance.

4. The gymnasium floor is only one and, in many instances, only a minor one of the instructional areas.

5. The classroom with a capacity of fifty pupils is an important part of the physical education plant.

6. The school yards should be of sufficient size to care for the laboratory play activities of a physical education program. They should be considered an intricate part of the play and recreation areas of a model city plan.

7. The use of the physical education plant can be greatly increased by providing for laboratory play periods throughout the day thus cutting down the peak-load which normally uses the facilities immediately after school.

8. The school playgrounds should be located in accordance with population trends and should become the logical playgrounds of the school age child.

9. The physical education plant should have its entrances and exits so located that it can be used for community use while other portions of the school are not in session.

10. Supplies and equipment for physical education should be budgeted by the board of education as are those for all other activities. This should hold for all athletics if the school considers such activities educational. A per capita supply budget should be established for all schools.

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CHAPTER IX

THE TIME SCHEDULE

The second element in the teaching situation deals with the time in which to conduct activities. How much time is needed at the various ages, how this should be distributed between the instructional periods and the participation periods, what time during the day should be devoted to physical education, and whether the time allotment should cover instruction in hygiene and health are questions which administration must face.

Time must be distributed according to the space which is available, the activities which are to be given and the classification of the children. All of this must be done in the light of the four-fold development which is indicated on page 6. We have already noted that it is impossible to affect one level alone.

I. EARLY STATE LAWS FIXED TIME ALLOTMENT

In the early physical education laws there was a tendency to set minimum instructional periods. In general these were established at twenty minutes a day for elementary schools and one hundred and fifty minutes a week for high schools. This allotment of time was accidentally suggested in the first state law. It was copied by many other states. There was little or no scientific basis for determining twenty minutes a day for elementary schools or one hundred and fifty minutes a week for high schools. School authorities now agree that the period should not be less than one hundred and fifty minutes per week for all children and that the time allotment should not be determined by law but by the state and local authorities.

II. AMOUNT OF TIME NEEDED AT VARIOUS AGES

To answer the question of how much big muscle activity a child needs at various ages is difficult, because the organic conditions of children of the same age vary in accordance with the normal distribution curve. One way of answering this question is by observing how much activity children actually take when left to themselves. In all probability they need as much big muscle activity

during the period of growth as it is possible for them to get, without reaching the point of exhaustion. Unless children are pushed by adult leadership they can be trusted to stop before they reach the dangerous point of fatigue. Three studies as to the amount of activity children need are indicated on page 278. Upon the basis of studies made of the physiological needs of children the following figure suggests the big muscle activity requirements of the various ages. The peak-need comes between the ages of nine and twelve. The period just previous to the onset of puberty presents, therefore, a golden opportunity. The time estimate for the one to three period is crude since few studies have been made.

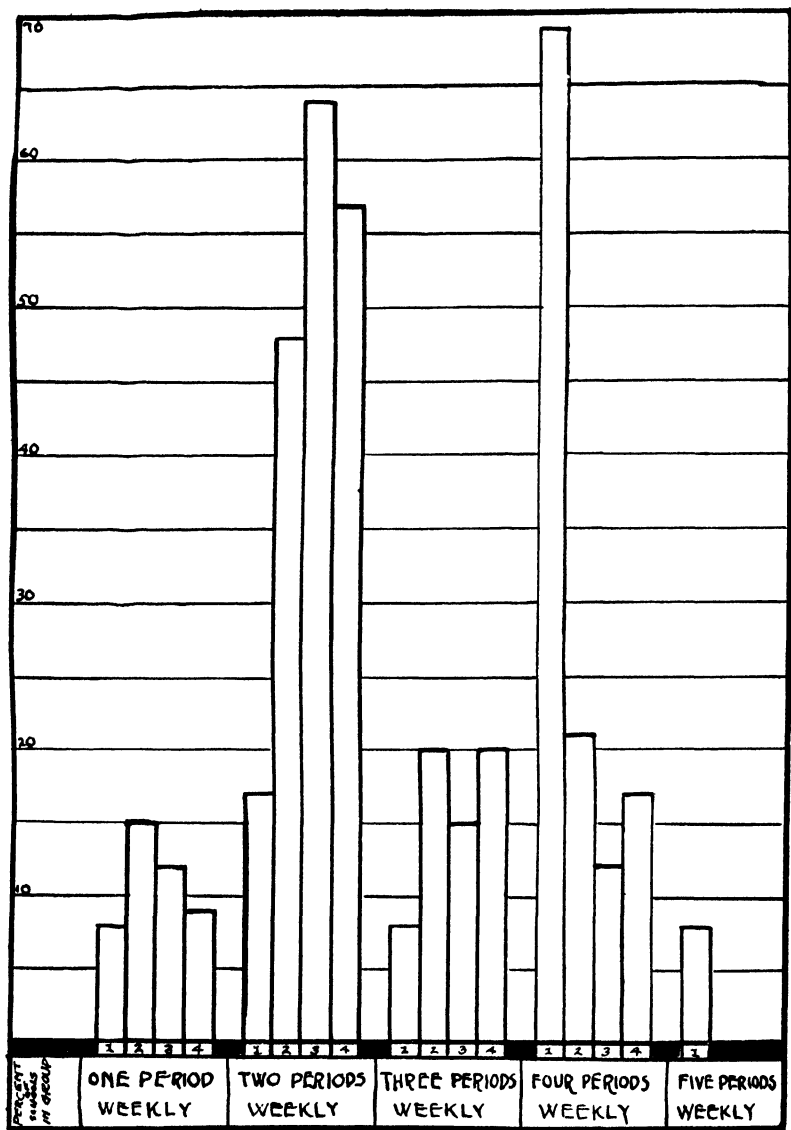
The distinction between power building and power maintaining activities should again be noted. During the period of childhood time must be given to power building (page 108). Requirements here are very much greater than during the later periods of life when time must be allowed merely for power maintaining. The inference that the peak-need of time comes during the upper elementary grades should have some significance in organizing school programs.

III. TIME NEEDS VIEWED FROM THE EVOLUTIONARY STANDPOINT

In viewing life as the *parade of the living*¹ the outstanding inference is that the age of man, particularly the age of urban man, is but a mere drop in the sea of time. Man's body came to its present state of being by means of stimulating activities, a large part of which was big muscle. Upon this basis, shifting though it may be, rests the physical development of the race. Biological laws cannot be scrapped for new as we discard old machinery in this mechanical civilization. It took time to bring forth a human organism, integrated and correlated, with organic power to stand the wear and tear of normal life. It will continue to take time to lay down the organic base for future generations.

Childhood, under the impetus of the activity drive, becomes the period when the individual recapitulates the life of the race. It was thus with primitive man. It is thus in rural life. It will continue to be thus in urban life. The organization of urban civilization and the installation of the institutional school, with its tendency to cut down opportunities for activity, can in no way alter the needs of childhood. It is known that many types of children's

¹ John Hodgdon Bradley, Jr., *Parade of the Living*, Coward-McCann, Inc., New York, 1930.



Courtesy of James F. Rogers, Office of Education, Washington, D. C.

Showing Status of Time Allotment in Physical Education in Cities of 10,000 to 30,000
Population: (1) elementary school, (2) junior high school, (3) high school, (4) senior high school.

disorders, particularly those which have to do with posture and communicable disease, show a marked increase at the time when children start to school. There are many reasons for this:

Children are thrown into close contact with other children.

Children are housed under artificial seating conditions.

Children are housed under artificial lighting and heating conditions.

The opportunity for big muscle activity is cut down. The growing approval of short hours during the kindergarten and elementary years, together with a school program which allows opportunity to move from place to place, are moves in the right direction for the physical well-being of children.

Summer vacation periods developed along with the idea of the institutional school, largely as an economic need. Schools used to be dismissed early in the summer so that children might work on the farms. Even now, in many cities, schools are dismissed several weeks before Christmas so that pupils may work in stores. Urban conditions have removed the necessity for the vacation in the old sense. This places an additional demand upon the school for a complete reorganization on a year-round basis to adequately take care of the big muscle needs of growing individual. Schools where children have been kept inactive and where long hours of home study have been assigned to small children, have been termed *legalized criminality*.

TABLE XXXI

DAILY SCHEDULE OF RATIONAL HABITS FOR SCHOOL CHILDREN¹

Age in Years	Time		Number of Minutes for				Hours	
	of Rising	Free Time	Play	Physical	Total	Mental	Bed Time	of Sleep
6	7:00	180	180	..	360	..	6:30	12
7	7:00	180	180	..	360	..	6:30	12
8	7:00	195	195	..	390	..	7:00	11½
9	7:00	225	200	25	450	..	7:00	11
10	7:00	225	165	30	420	30	7:30	11
11	7:00	225	180	45	450	30	8:00	10½
12	7:00	285	180	60	525	45	8:30	10
13	7:00	315	180	60	555	75	9:00	9½
14	7:00	315	165	60	540	90	9:00	9½
15	7:00	315	165	60	540	90	9:00	9½

¹ Max Schan, "Recognition of Fatigue in the School Child," *American Journal of Public Health*, Volume XXIX, October, 1920, p. 106.

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IV. AMOUNT OF TIME ACTUALLY BEING DEVOTED TO INSTRUCTION IN PHYSICAL EDUCATION

The figures on pages 274, 277, 280 indicate the number of periods which representative schools are devoting to physical education.²

The time devoted to physical education in senior high schools varies from one to five periods as is noted in the following:

1 period per week.....	7 to 10%	of the schools
2 periods per week.....	52 to 55%	of the schools
3 periods per week.....	22 to 23%	of the schools
5 periods per week.....	15 to 22%	of the schools

The number of periods devoted to physical education in junior high schools varies from one to five as is noted in the following:

1 period per week.....	3 to 13%	of the schools
2 periods per week.....	46 to 53%	of the schools
3 periods per week.....	20 to 23%	of the schools
5 periods per week.....	18 to 19%	of the schools

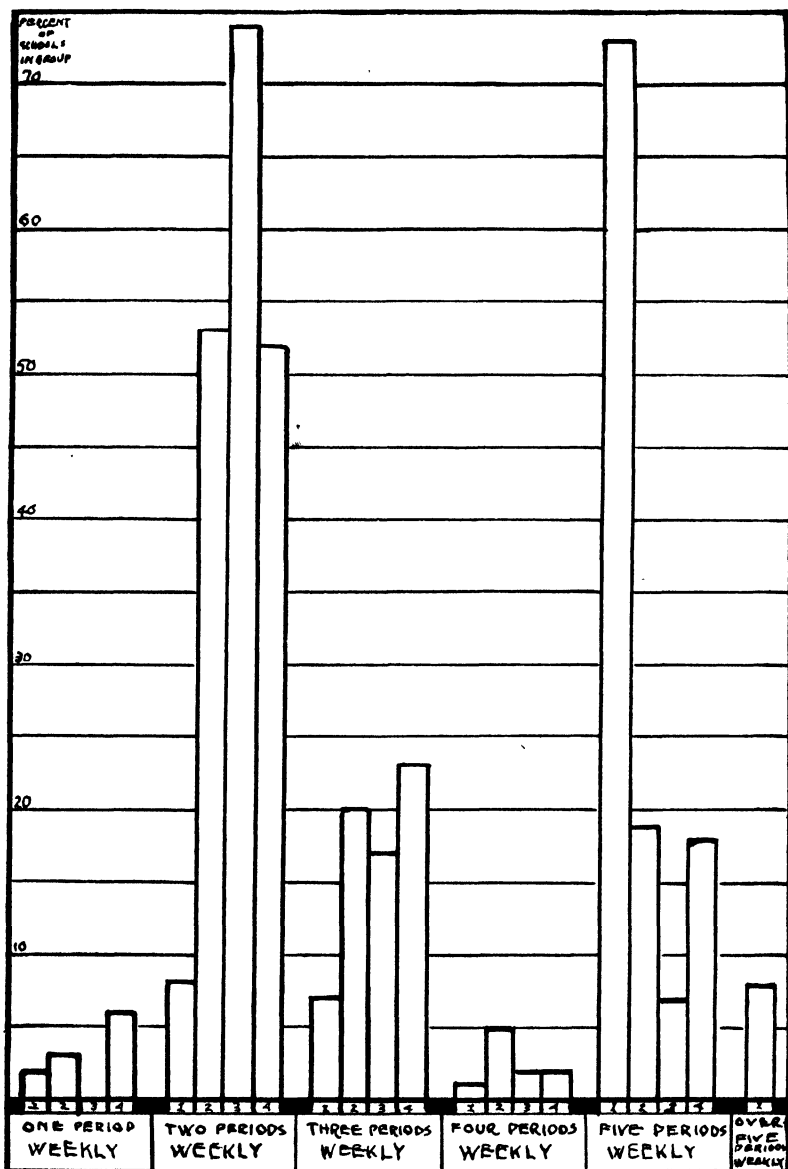
The number of periods devoted to physical education in elementary schools varies from one to ten as is noted in the following:

1 period per week.....	2 to 6%	of the schools
2 periods per week.....	10 to 15%	of the schools
3 periods per week.....	6 to 21%	of the schools
5 periods per week.....	65 to 73%	of the schools
10 periods per week.....	6 to 8%	of the schools

A. Types of Periods To Be Considered. In physical education there is an instructional period and a laboratory or participation period.

The objective of the instructional period is to teach new activities under the best possible situation and to assist in the improvement of skills. There will of necessity be participation in this period. The instructional period might consist of drill in technique, black board demonstration on rules and methods or the teaching of the fundamental laws of hygiene. The laboratory or participation period is a time for practicing those things which have been taught in the instructional period. Instruction will con-

² Marie M. Ready, *Physical Education in City Public Schools*, Physical Education Series, No. 10, Bureau of Education Department of the Interior, U. S. Government Printing Office, Washington, D. C., 1929.



Courtesy of James F. Rogers, Office of Education, Washington, D. C.

Showing Status of Time Allotment in Physical Education in Cities of 30,000 to 100,000 Population: (1) elementary school, (2) junior high school, (3) high school, (4) senior high school.

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tinue in this period but it will be less of the drill type. The division of time between these two periods will depend upon needs. Long hours must be devoted to the building of organic power throughout childhood and these hours must be acquired in the laboratory periods. For an adult sufficient time is needed only for the maintenance of power; hence less laboratory time is needed.

1. *Length of Instructional Periods.*³ The time requirement for physical education which has been established by law has referred merely to the instructional period or to the time allotment within the school day. The length of this period will vary in accordance with the type of school.

TABLE XXXII
TIME ALLOTMENT ESTIMATE ¹

Group I 6-10 year No. 100	Very active play and games		Reading		Parlor Games	Make Believe
Group II 11-12 year No. 180	Very active play and games—outdoor sports	Sewing	Reading		Parlor Games	Miscellaneous
Group III 13-14 year No. 225	Active games and outdoor athletics		Sewing		Reading	Misc.
Group IV 15-16 year No. 150	Active games and outdoor athletics		Sewing	Reading	Dancing	Misc.
Group V 17-21 year No. 115	Active games and outdoor athletics		Sewing		Dancing	Miscellaneous

¹ A study of the proportion of time that children give to recreational activities made by Dr. William A. Burdick, Public Athletic League, Baltimore, Maryland.

a. **Senior High Schools.** The ideal length of physical education periods in the high schools would be five sixty-minute periods per week, four of these to be devoted to the teaching of physical education activities and one to a class room conference. In this conference problems of health, personal hygiene, character education, organization of the group, etc., could be considered. This should be an organization meeting, not a lecture. The object

³ *The Development of the High School Curriculum*, National Education Association, Sixth Yearbook, Department of Superintendence, Washington, D. C., 1928, p. 460.

should be to get students to enter actively into a procedure, the by-product of which would be self-direction in matters of health, character and citizenship. The community hygiene is usually best taught in the science courses.

If the period drops to forty-five minutes per day it is advisable to have a double period two or three times a week rather than to have a single forty-five-minute period daily. The reason for this is that in a forty-five-minute period, after deducting the time for dressing, showers and re-dressing, scarcely a net period of twenty minutes remains. In twenty minutes it is almost impossible to conduct any activities which will guarantee educational results.

The senior high school student has just about finished the power building process and is rapidly approaching the power maintaining age. This means that time allotment is less important on this than on the lower school levels.

It is advisable that the high school student be allowed considerable freedom in the selection of activities unless he is in need of individual attention. While allowing a certain degree of election it is possible to stress development on the fourth level: namely, the emotional-impulsive. Development on this level probably reaches its peak at the high school age. Therefore, although a boy may be sound organically and, hence, not in as much need of physical education activities from that standpoint, he may be in great need of them on the emotional-impulsive level (page 6).

b. Junior High Schools. The time allotment needs for the junior high are greater than in the senior high school. The recommendations just given should therefore be considered minimums. In the junior high school the class room conference period is of utmost importance. It could be used for organizing wholesome life procedures but should not be called a health or hygiene period any more than a character period. Orientation period would be a good name for this time allotment.

c. Elementary Schools. The tendency to devote to physical education two full periods, ranging in length from thirty to sixty minutes within the official school day, is noted on pages 274, 277 and 281. One of these is the instructional; the other the laboratory period. We have already noted (page 103) that the time needs from the standpoint of organic development are greater in the elementary schools than at any other age. The peak is reached at approximately twelve years of age, hence, adequate time allotment becomes of prime importance (pages 275, 278 and 281).



Courtesy of James F. Rogers, Office of Education, Washington, D. C.

Showing Status of Time Allotment in Physical Education in Cities of 100,000 and over: (1) elementary school, (2) junior high school, (3) high school, (4) senior high school.

Two full forty-five to sixty-minute periods should be considered the minimum. This minimum is being met in the platoon schools in Gary, Indiana; Detroit and Grand Rapids, Michigan, and in other cities. The need for a large time allotment on this level becomes more important when it is realized that many children never go to high school. Two full periods for physical education lessens the need for the after school laboratory play period but does not eliminate it entirely. The health instruction should be incidental throughout the day. No period should be set aside as a health period. Even the word *health* should not be mentioned. The child should be surrounded with hygienic conditions and an atmosphere of happiness. He should become familiar with conditions that may harm him and others. Health results must be natural outcomes.

TABLE XXXIII
DISTRIBUTION OF ACTIVITIES BY AGE PERIODS¹

<i>Age</i>	<i>Total average waking hours</i>	<i>Big muscle</i>	<i>Manual</i>	<i>Linguistic</i>	<i>Automatic</i>	<i>Doing nothing</i>
0-1						
1	9½					
2	10½					
3	11½	..	2	..	2	?—
4	12	..	2	..	2¼	?
5	12½	4½	2¼	2½	2½	?
6	12¾	4¾	2¾	2½	2½	?
7	13	5	3½	2+	2¼	?
8	13½	5½	3¼	2¼	2	?+
9	13¾	6	3¾	2+	2	?
10	14—	6	3½	2¼	2	?
11	14	5⅔	3½	2½	2	?
12	14	5	4	3	2	?
13	14½	4½	4	2¼	2¼	?
14	15	4	4½	3¾	2½	?
15	15½	4—	4¾	4	2¾	?
16	15¾	3½	4¾	4½	2¾	?
17	16—	3	4¾	4¾	3—	?
18	16	2½	5½	5—	3	?
19	16	2	5¾	5	3	?
20	16	2	5½	5½	3	?

¹ Experimentation of Clark W. Hetherington at the Play School, University of California.

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d. Platoon Schools.^{4, 5} Because of the length of the school day it is possible to provide a more adequate time allotment for physical education in the platoon school. It should also be kept in mind that the moving from one class to another, the activities in manual training and domestic arts and sciences, together with the other special subjects provide a considerable amount of big muscle activity. Because of the arrangement of subjects it is possible under this plan to allow the largest time allotment at the period when the child's needs are the greatest, namely, in the elementary school. Most of the schools provide two periods—one, the physical education period, the instructional period; and the other, the play period, the laboratory period. This insures every child one play period during the day under adequate supervision.

The minute time allotment for physical education activities by grades is indicated in the following plan for Detroit:

TABLE XXXIV
WEEKLY TIME ALLOTMENT

<i>Physical Education</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>
Gymnasium	150	150	150	150	150	150	150	150
Play	150	150	120	60	60	60	0	0
Recess	100	100	100	100	100	100	100	100
Total	400	400	370	310	310	310	250	250

In many schools six hundred minutes weekly are allowed for physical education and play. This is two full hour periods per day for the kindergarten and primary grades and in some schools for the upper elementary grades.

Working and living conditions on the farm have little or no relationship to-day to the conditions encountered in city life. The child no longer has chores to do and can assist but very little in the family life. His presence on the street constitutes a menace to life and unsupervised play activities may take the form of delinquency and crime. The lengthening of the school day is but one step toward having the school supervise the laboratory play period at the close of the school day as well as on Saturdays, holidays and in vacations.

⁴ Alice Barrows and Florence K. Evans, *Source Material on Platoon or Work-Study-Play Schools*, City School Circular No. 7, Department of the Interior, Bureau of Education, Washington, D. C., June, 1928.

⁵ Margaretta R. Voorhees, *Some Phases of Administration in a Progressive Lower School*, *Progressive Education*, Vol. VII, No. 3, The Progressive Education Association, Washington, D. C., April, 1930, p. 115.

2. *Laboratory Periods.*⁶ The laboratory period should consist of any available time during which the child participates in big muscle activity. This should include time before school in the morning, the recess and noon periods, the after school periods and all of the holiday and vacation periods. Participation can take place not only in the school in the gymnasium, and swimming pool but at the home, on vacant lots or in any of the social institutions where activity is provided. Unless these hours are under the supervision of the director of physical education valuable teaching possibilities are forfeited. This is largely the basis for our recommendation that the school child's playground activities should be administered by the school. The laboratory is the place to try experiments under supervision. It becomes a most valuable teaching time and should be recognized as a legitimate part of the teacher-load. The laboratory period closely resembles life condition and, hence, there exists the possibilities of social carry-over.

a. *Before School in the Morning.* The period from eight to nine in the morning often becomes the participation period for boys who carry papers and have other routine work immediately after school.

b. *Recesses.* The thirty minutes devoted to recess become a very valuable participation time. Under proper organization classes can have from six to seven minutes net for participation.

c. *Noon Period.* The latter half of an hour noon period may well be utilized for participation. Short intramural games can be scheduled. The gymnasium should be available for activities.

d. *After School Period.* After school becomes the important laboratory period. Schedules should be so arranged that every child has an opportunity for play during this period for as many times a week as facilities will permit.

e. *Vacation Period.* The summer vacation becomes the laboratory period for physical education. It is during the summer months that the largest number of playgrounds are administered. The vacation has given impetus to the summer camp and the play school movements. The day may even come when the vacation period will be so arranged that a certain group of children may be in camp part of the year under the public school auspices. The utilization of this time for the carry-over activities of the physical education program becomes of paramount importance.

⁶ Some cities, notably Los Angeles, issue a special bulletin on noon and recess activities.

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f. Evening Period. The evening period should also be considered a laboratory period especially for the trade and part-time schools, and community recreation programs. The public school child should not be encouraged to participate in this period.

3. *Special Periods.*

a. Relief Periods. In institutions where it is impossible, because of the size of the school or the lack of facilities, to provide a yard recess several informal relief periods are of value. Freedom of the room and informal games are suggested.

b. Morning Inspection. A five to ten minute period in the morning for inspection (page 440) could very well be used. This need not be made obnoxious to the child by violating personality but it could serve as a protection to him by having contagious cases excluded by the nurse or doctor.

4. *Individual Activity Periods.* An individual activity period might be of great value in addition to the instructional period discussed. It will be primarily for individuals who deviate widely from the group or who are under prescription from the medical expert.

5. *Conference Periods.* Conference periods should be made available so that individual students could find an opportunity to come to the director of physical education with personal problems.

6. *Health Coördination Periods.* The organization of the health coördination program is discussed in Chapter XIX.

PROBLEMS

1. You are the director of physical education in a city which has a required time allotment of twenty minutes per day in the elementary grades and forty-five minutes per day in the high school. The superintendent has sent you a note asking that this time allotment be justified. How would you reply?

2. The principal of a high school has increased the number of periods per day so that the time allotment for each is forty-three minutes. In the physical education period five minutes is allowed for passing and another twelve minutes must be allowed for dressing. He has given you, the director of physical education, the alternative of a double period two days a week or a single period five days a week. Which would you take?

3. You are the supervisor of a number of elementary schools. The state law demands the teaching of hygiene twenty minutes per day. The law also provides time for health inspection daily and a minimum of twenty minutes per day for physical education. You have been asked by a number of teachers whether the teaching of hygiene should be restricted to the period set aside

for hygiene or whether it should be included in the daily set-up of the physical education period. How would you advise them?

4. You have been challenged by a physician relative to your statement that a child of ten years requires from five to six hours a day for big muscle activity. How would you justify your statement?

PRINCIPLES

1. The physical education activity time needs of an individual are infinitely more than can be provided during the established school day. Provision must be made for an additional laboratory play period.

2. The instructional time allotment during the established school day should be a time for organizing and teaching.

3. The time allotment outside of the established school day should be a laboratory play period for the purpose of practicing under supervision those things that are taught in the instructional period.

4. More time is necessary for the building of power than for the maintenance of power.

5. The director of physical education should recognize the danger signals when an individual is getting too much or too little activity.

6. Organic power building needs are greatest during the elementary school age. The time allotment here should be large.

7. In the high school period time for building organic power is not so necessary as time for the building of emotional-impulsive power.

8. Physical education activities should be thought of in terms of an all day and a year-round program.

CHAPTER X

CLASSIFICATION OF ACTIVITIES

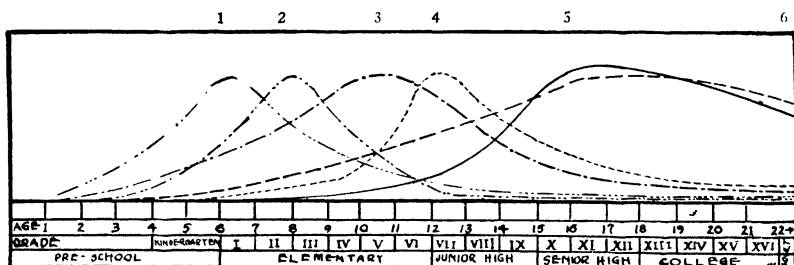
The third element in the teaching situation is the classification of activities. This classification must meet the needs of the various groups discussed in the previous chapter. We have set forth a number of times that it is through activities that education takes place. To a large extent the crux of an educational situation lies in the selection of activities. What effect do various activities have on an individual from the standpoint of the four level development? What effect do activities have on organic development—which build power? What effect do they have from the standpoint of neuro-muscular development—which are the best builders of strength and skill? What effect do activities have on interpretive-cortical development—which provide the best opportunities for the individual to build the meanings of symbols which form the basis of thinking? Finally, what effect do activities have on emotional-impulsive development—which lend themselves best to the formation of right attitudes, emotions and impulses?

These effects, in the light of individual differences, present a very complicated problem. It is one which few people have attacked seriously. There are those who are making the effort to measure the effect of activities on specific levels, but no one seems to be attempting to maintain the four-level viewpoint. We therefore have some superficial tests but, to a large extent, must depend upon objectified judgment. This judgment need not be mere opinion. If backed by clinical experience, it represents as near finality as anything we know. It is in this way that the skilled director of physical education must make judgments. Thorough training in which possible effects of activities are pointed out on the various levels, backed by experience in which the individual has been alert to possible outcomes, should make it possible for him to make judgments with great accuracy. It is upon the basis of such experience that men have learned to train horses for the track, and it is upon the same experience that trained coaches have learned to develop athletes. Directors of physical education must be able to recognize signs and signals which indicate danger or which indicate that development is proceeding harmoniously.

I. TYPES OF ACTIVITY

Types of activity have been analyzed on page 6. So far as the physical education or big muscle activities are concerned an attempt has been made to classify them from the standpoint of the psychological drives and designate them so that the name suggests a true picture. This is done in order to avoid the confusion which now exists in terminology. It is impossible for two people in the profession to discuss activities without illustrating them because various schools and movements have established their own nomenclatures. Gymnastics to one group means marching and calisthenics, while to another, apparatus. Light apparatus and heavy apparatus are terms which have meanings to one group and no meanings to another. Athletics to one group refers to the whole gamut of highly organized games while to another it means track and field activities. The terms indoor and outdoor activities have become meaningless. Even large group and small group activities and simple or complicated activities do not carry meanings.

In order to get a true picture and arrive at a common terminology the big muscle activities, together with their rise and fall depending upon interests, are depicted in the following figure:



Estimated Peak of Physical Education Activity Interests: (1) dramatic games, (2) stunts, (3) tag and it games, (4) combative activities, (5) rhythmic activities, (6) athletic activities.

Thorough studies of the variance of these curves have not been made. The figure, however, represents the writer's best judgment. Individuals will vary in regard to them in accordance with the normal distribution. The sharpness of the rise and fall of interests is not as pertinent as is the interest plateau in each activity.

It is possible to discuss the big muscle activities under the following headings: natural-creative, formalized and related.¹

¹ Clark W. Hetherington, *School Program in Physical Education*, World Book Co., Yonkers-on-Hudson, New York, 1922, p. 16.

A. Natural-Creative Activities. The natural activities are those which easily arouse an interest in the individual. They are creative in that they actually initiate the neural connections and attitudes in the child which easily form a point of departure for future interests. They present all of the elements of a game—a challenge, a possibility of failure, a chance of success and great personal satisfaction if success comes. Most of the creative activities have hereditary roots. They are recapitulatory and at the same time become a means of education. The majority of these activities includes overcoming, hence, the possibility of failure and depression. The word *overcoming* is used in the sense that all activities which have a game element have to do with a conquest. The conquest may be the overcoming of gravity as in the high jump or the obstacles set up in a game of tennis or handball. It may on the other hand have to do with the overcoming of an opponent, or the inhibitions in perfecting oneself in a dance step or in doing some complicated stunt. Such activities involve the chance for success and elation. They present an opportunity for the child to play with the fear mechanisms just as the race has always played with them. For the purpose of classification these creative activities may be separated into the following groups:

1. *Stunt Activities.* These activities give the child opportunity to test himself. Interest in them is apparent from a very early age, as the child learns to balance, walk and, later, to run. After the child gains his balance he climbs onto chairs and later into trees and onto buildings. Soon he becomes interested in doing tricks with his body—forward and backward rolls and head and hand stands. Finally interest is aroused in activities which involve partners and even groups as in pyramid building. The most elaborate performances on the various types of apparatus are an outgrowth of the individual's urge to test himself.

2. *Dramatic Activities.* Dramatic activities constitute the whole régime of make-believe and represent deep-seated racial tendency. The young child from one year to seven lives to a large extent and acts in a land of make-believe. He is a house, a pirate, a lumberjack, a derrick. His teacher has, therefore, an easy approach to guiding him in all sorts of activities. Running, leaping, balancing, throwing, etc., are all learned in their natural environment. Singing games tell a story, rhythmic action plays follow activities that the child has seen or has been told about. Dramatic activities which the physical education teacher chooses as the basis for teaching are those creative actions involving the big muscles of

the body, those which are the foundation for all the succeeding neuro-muscular skills.

3. *Chasing and Fleeing Activities.* Chasing and fleeing tendencies form the hereditary background of activities. Allport² designates these as the starting and withdrawing tendencies in racial history. To catch meant to feast. To be caught meant death. These tendencies have a deep racial significance as life is a game of catching and being caught. The child in playing those games which loom so large in the preadolescent period is merely reacting racial experience. Through these activities he is developing power to act aggressively. He is developing the fear mechanisms which play a large part in the preservation of life. All the games which involve hiding, seeking, escaping and particularly those which have established an *it*, fall into the class of chasing and fleeing activities.

4. *Rhythmic Activities.* While rhythm is a primary characteristic of all body movement, the term rhythmic activities is applied specifically to those activities which have music or sound accompaniment and in which satisfaction is gained from rhythmic movement for its own sake, and for its potentiality as a medium of expression. This classification includes the rhythmic-dramatic plays of children, folk dancing, clog dancing and a free form of dancing variously called creative, interpretive or natural. The predominant contribution of this group is the varied opportunity it affords for active response to rhythm, which is a universal urge. Another unique value lies in its comparative freedom from standardization and limiting boundaries, and its consequent development of spontaneous individual and group impulse. Its expressive potentialities for all age levels are rich and significant.

5. *Combative Activities.* The activities which involve pitting oneself against another may be thought of as combative activities. Such activities as boxing, wrestling, cock fighting and fencing fall in this class. While boxing and wrestling do not have a large place in the educational régime variations of these activities may be utilized. The word *combative* is reserved for activities which involve two individuals.

6. *Athletic Activities.* Athletics involve the highly organized group activities. These are largely made up of chasing and fleeing, self-testing and combative elements. Undoubtedly they also in-

² Floyd Henry Allport, *Social Psychology*, Houghton Mifflin Co., New York, 1924, p. 50.

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volve some of the dramatic elements. Therefore they are not simple but composite drives.

7. *Game Elements.* Some activities can be broken into challenging elements which then assume the nature of creative activities. Basket shooting, drop kicking, goal kicking in soccer, stick work in hockey and certain tap routines may be thought of in themselves as challenging. They are challenging, however, only as they are closely related to the parent activity. Too often elements as the *all-round athletic activity events* become merely drill.

B. Formalized Activities. It was pointed out on page 24 that the words natural and formal should be reserved for methods rather than activities. When any of the natural activities are broken into minor elements for the purpose of drill they soon become formalized. The drill or formal type of activity is one which does not lay the foundation for or lead on to some other activity. When the drill becomes an end in itself it is deadly. The instructor may have in mind future objectives such as limbering up, conditioning, and the building of organic power; but unless the objectives are apparent to the child, and he is interested in them, it remains drill. This type of teaching has already been referred to as the logical type as compared to the psychological or the interest type. In the past too large a proportion of physical education activities has been of the drill type. The spirit of the activity often goes with the passing of the inventor. Followers are left with the hollow shell and the more hollow it is the more likely they are to cling to it. If the formalization can be practiced and the child understands the relation between practice and success in the game than it becomes a creative activity. Thorndike says,³

"we are led to the conclusion that the best time to learn a thing is just before we need to use it, for it is using it that makes it an organic part of our education."

Natural-creative interest driven activities need not necessarily be simple or easy from the standpoint of effort. They may become infinitely more difficult than formal activities. Formalized activities are easy to teach to large numbers in a small space. Teaching creative activities demands keen observation and analysis and an infinite amount of originality on the part of the leader to be successful.

C. Related Activities. Many activities are closely related to the core of the program of physical education. Those concerned

³ Edward L. Thorndike, *New York Herald Tribune*, February 15, 1931, p. 5.

with camping—with the out of doors, the program of the scout organization, campfire girls, and the playground movement involve a combination of activities which are very closely related to physical education.

D. Promotion of Standards. Health and character standards should not be thought of in terms of activities and so should not be entered into the above classification. They should be considered in terms of standards, as outcomes of activities of the physical education as well as the other programs organized by the school. Health practices may be maintained through activities. Teaching may be organized around the activity program yet by itself would not be considered an activity.

E. Activities Analyzed from the Standpoint of Wholes or Parts. In the classification of activities distinction must be made between those which are taught by the whole and those by the part method. This same principle holds not only for physical education but for all activities.

Communicative activities are interesting to the child; but if separated into writing exercises, learning rules of grammar, memorizing vocabularies, etc., interest lags. Likewise dividing music into voice syllables and scales lessens interest. Breaking up natural physical education activities into component parts tends to kill interest. In order to arouse interest, activities should be taught by the whole method. Whenever parts are taught the relationship of them to the whole should be apparent to the pupil. The teaching of game elements should be closely related to the playing of the game. The game is the incentive.

The logical method of teaching is to separate an activity into elements and to build up the whole, part by part. The psychological method of teaching is the presentation of the whole until interest is aroused; after which, the individual may want to analyze the activity into parts in order to perfect the whole.

F. Activities Vary in Educational Values. Upon all the levels activity must be considered as a means of education. Some activities such as organized team games, creative dancing, and tag and it games offer great possibilities because they involve social relationships. Some activities have great inherent possibilities regardless of any social contact. Such will be represented in stunts, in building a boat or in making a kite.

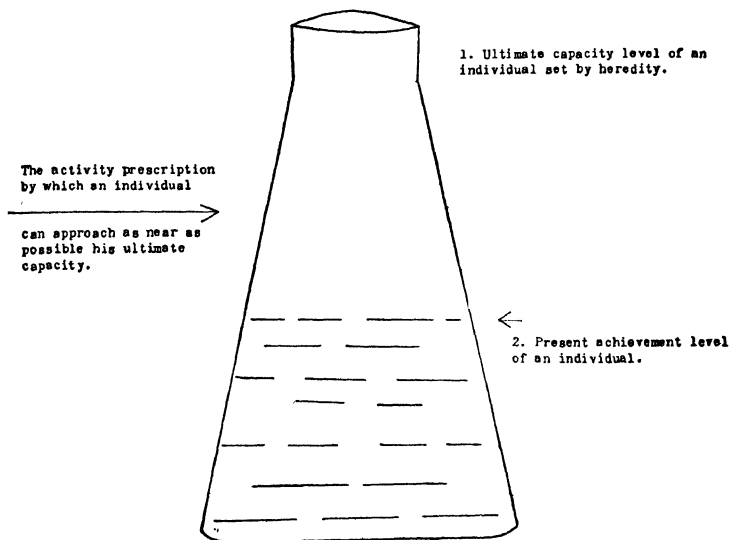
G. Activities Become the Tools or the Means of Education. The following figure will indicate the relationship between the classification of activities and the classification of children. The

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classification of children should indicate the ultimate hereditary capacity together with the present achievement level.

A PRIMARY FUNCTION OF
EDUCATION IS TO DETERMINE:

A FUNCTION OF CLASSIFICATION
TESTS IS TO DETERMINE:



Relationship of Achievement to Capacity

In the above figure the volume of the jar represents hereditary capacity. Hereditary boundaries are set on various levels including not only interpretive but organic and possibly impulsive power. It must be the ultimate hope of tests to determine the capacities of an individual. This will be referred to as one of the principal objectives of further research on page 465. A less difficult task is the determining of the present achievement level of an individual. In the above figure this is represented by the level of the contents. It is a primary function of education to prescribe activities whereby the individual's present achievement level is raised, as near as possible, to his ultimate capacity level. Hence the classification of individuals and the classification of activities become essentials in an educational program.

H. Activity Program must be Progressive. One of the essentials of an activity program is that it must progress from simple

to complex movements. When a child has mastered the head stand interest lags unless he is able to go on and practice the hand stand. After the hand stand has been mastered he wants to walk on his hands. Hence one activity is built upon another. The stunt program especially should progress from simple to complex movements. The same should also hold for the steps in dances and elements in games. This progress from simple to complex does not preclude progression within a single activity such as the game of hockey where an individual progresses from a low level to a very high level of skill. Progression from simple to complex activities or from low to high levels of skill is necessary if proper development is to be an outcome and if interest is to be maintained. We maintain interest in an activity in accordance with the following formula:

Activity must present a challenge.

The individual must be within striking distance of success.

Social approval must be given.

II. LEADERSHIP ESSENTIALS IN THE SELECTION OF ACTIVITIES

Skilled leadership becomes essential in the classification of activities and in the adaption of these activities to various group and individual needs. Expert judgment must be made upon the basis of training (page 418) and clinical experience. It must have in mind both the protection and the guidance of the individual.

A. Protection. The individual must be protected not only from injury on the organic level but from injury on the emotional-impulsive level. Discouragement, coming from a broken spirit, may cause more injury than a weakened heart. Children must not be pushed beyond the point of fatigue on the organic level and they must not be pushed into activities in which they have no chance of success, or, which is just as bad, in which they have no chance of failure.

B. Guidance. Leadership uses activities as a means of guiding the individual. The leader merely organizes and sets up the situation.

The organization of leadership is very complex because every contact which one individual makes with another offers possibilities for this guidance. Leadership must be considered not only as the

The following tables represent an evaluation of activities on the various levels of development:

EVALUATION OF ACTIVITIES ON THE NEURO-MUSCULAR LEVEL¹

Age:	
Estimated Capacity: ²	
Skill	
Rapidly of movement	
Range of movement	
Fundamental	
Accessory	
Coordination	
Strength	
Power prerequisite to skill	
Power release	
Leadership Opportunities for Future Results ³ —power and skill	
Standards:	
Health	
Character	
Use of leisure	
Carriage	
Safety first	
Joy	
Sustained interest	

² Fill in list of proposed activities in accordance to age, sex, and capacity needs and evaluate.

³ These elements represent evaluations which are made by the teacher in contact with the child in the teaching process.

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EVALUATION OF ACTIVITIES ON THE EMOTIONAL-IMPULSIVE LEVEL¹

[illegible]

² Fill in list of proposed activities in accordance to age, sex, and capacity needs and evaluate.

³ These elements represent evaluations which are made by the teacher in contact with the child in the teaching process.

TABLE XXXVII

EVALUATION OF ACTIVITIES ON THE INTERPRETIVE-CORTICAL LEVEL¹

Age:	
Estimated Capacity: ²	
Opportunity to Learn About Activity	
Rules	
Elements	
Environment—An Opportunity for Experience	
Inanimate	
Objects	
Space	
Time	
Relationship	
Animate	
Animal	
Human	
Self	
Comparing self with achievements of others = norms	
Comparing achievement of self with past achievement.	
Comparing self with ideal of capacity of self.	
Leadership Qualities for Future Results ³ —Power, Skill, Thinking	
Standards:	
Health	
Character	
Use of Leisure	
Experimentation	
Projecting judgments	
Joy	
Sustained interest	

¹.See figure on Four Fold Development (page 6).

² Fill in list of proposed activities in accordance to age, sex, and capacity needs and evaluate.

⁸ These elements represent evaluations which are made by the teacher in contact with the child in the teaching process.

ing without thinking of it in terms of changes. It cannot be thought of as giving information nor as demanding memory. It must be thought of in terms of changing behavior. In evaluating activities from this standpoint the keynotes will be correlation and integration. Changes, the result of activity, are represented not in terms of an addition of parts but in terms of an emergent. Something new is present. Inasmuch as the new thing is more than an accumulation of parts it cannot be measured with tools which measure the parts. It must be a new type of measurement or evaluation. This new measure will likely be skilled judgments based on clinical observations of the effect of activities on individuals.

IV. CLASSIFICATION OF ACTIVITIES IN THE PLATOON SCHOOL^{4, 5, 6}

Classification of activities to meet the needs of children is simplified under the work-study-play plan. The fundamental needs, as just outlined are similar in this type of school. The presence of special teachers in charge of activities should make possible the wider and wiser selection of activities to meet the needs of children.

V. SELECTING ACTIVITIES FOR GROUPS

As individuals spread themselves out normally on a distribution curve it is possible to select activities for those near the central tendency.⁷ This becomes an important phase of mass education. It represents what has been done in the majority of cases over the country in curriculum construction. Individuals who are fairly homogeneous have been grouped together and activities to meet their needs have been organized. The administrative procedure for the selection of activities will be considered on page 306.

A. Methods of Selecting Activities. The number of methods

⁴ E. H. Drake, "A Health Program in a Platoon School," *The Platoon School*, National Association for the Study of the Platoon or Work-Study-Play School Organization, Washington, D. C., June-July-August, 1929, p. 76.

⁵ Elizabeth Ames, "Opportunities in a Work-Study-Play Organization for Health Instruction," *The Platoon School*, National Association for the Study of the Platoon or Work-Study-Play School Organization, Washington, D. C., September-October-November, 1930, p. 133.

⁶ Greba Logan, "A Day in the Health and Physical Education Department of a Platoon School," *The Platoon School*, National Association for the Study of the Platoon or Work-Study-Play School Organization, Washington, D. C., June-July-August, 1930, p. 63.

⁷ *The Research Quarterly*, American Physical Education Association, Vol. I, No. 2, Ann Arbor, Michigan, May, 1930, p. 15.

for selecting activities for group needs have been developed. Various types have been classified by Strattemeyer and Bruner.⁸

1. Activity Analysis Approach.^{9, 10}
2. The Objectives Approach.¹¹
3. Frontier Thinkers Approach.^{12, 13}
4. Child Experience Approach.^{14, 15}
5. The Adult Needs or Drill Approach.¹⁶
6. Median Present Practice Approach.^{17, 18}
7. Social Statistics Approach.¹⁹
8. Education Shortages.^{20, 21}
9. Best Present Practice Approach.²²
10. Social Values Approach.²³
11. Emotionalized Attitudes Approach.²⁴

B. Establishment of Minimum Skills. In each classification within the group minimum skills should be established. These should serve as teaching guides and should be known to the pupils. Beyond the minimum—median standards should be established,

⁸ F. B. Strattemeyer and H. B. Bruner, *Rating Elementary School Courses of Study*, Teachers College, Columbia University, New York, 1926.

⁹ W. W. Charters, *Curriculum Construction*, The Macmillan Co., New York, 1923.

¹⁰ W. W. Charters and Douglas Waples, *Commonwealth Teacher Training Study*, University of Chicago Press, 1929.

¹¹ Franklin Bobbitt, *How to Make a Curriculum*, Houghton Mifflin Co., New York, 1924.

¹² Harold Rugg, *Problems of Contemporary Life as Bases for Curriculum Making in the Social Studies*, National Society for the Study of Education, Twenty-second Yearbook, Part II, Chapter XV.

¹³ W. R. Laport, "Report of the Committee on Curriculum Research," *Research Quarterly*, American Physical Education Association, Vol. I, No. 2, Ann Arbor, Michigan, May, 1930, p. 15.

¹⁴ E. Collings, *An Experiment with a Project Curriculum*, The Macmillan Co., New York, 1927.

¹⁵ W. H. Kilpatrick, "How Shall We Select the Subject Matter of the Elementary School Curriculum?" *Journal of Educational Method*, Vol. IV, No. 3, September, 1924.

¹⁶ A. I. Gates, "A Modern Systematic vs. An Opportunistic Method of Teaching," *Teachers College Record*, Columbia University, New York, April, 1926.

¹⁷ W. C. Bagley and G. C. Kyte, *California Curriculum Study*, California University, 1926.

¹⁸ F. B. Strattemeyer and H. B. Bruner, *op. cit.*

¹⁹ Henry Harap, *Education of the Consumer*, The Macmillan Co., New York, 1924.

²⁰ William H. Kilpatrick, "The Public Elementary School: Its Status and Problems," *New Republic*, November 12, 1924.

²¹ Bertrand Russell, "What Shall We Educate For?", *Harper's Magazine*, April, 1926.

²² F. B. Strattemeyer and H. B. Bruner, *op. cit.*

²³ F. G. Bonser, *The Elementary School Curriculum*, The Macmillan Co., New York, 1923, Chapter V.

²⁴ Thomas H. Briggs, *Curriculum Problems*, The Macmillan Co., New York, 1926.

and beyond that—honor standards. This would make it necessary for a pupil to reach a minimum standard for passing and at the same time would give him unlimited opportunity to progress.

VI. SELECTING ACTIVITIES FOR INDIVIDUAL NEEDS

The selection of activities for those who vary widely from the quartile deviation must be made to fit the needs of individuals. These individuals will occupy both extremes on the distribution curve. These variations may involve any of the four levels: the organic, the neuro-muscular, the interpretive-cortical, or the emotional-impulsive. It is wise to call these activities individual rather than corrective, remedial or abnormal because in many instances it is the group that restricts. The individual himself may stand at either end of the distribution curve. Because of his superior ability the group holds him back preventing him from progressing according to his capacity. On the other hand, he may be unable to keep up to or compete with the group and so lose interest and derive but little benefit. In either case he needs activity which will be selected in accordance with his particular needs. The curriculum should give special consideration to the classification of those who have individual needs and to the selection of activities to meet these needs.

A. Variations Which Are Low on the Distribution Curve.

1. *Administrative Objectives for Individuals Low on the Organic Level.*²⁵

a. Individual Contacts. To make all contacts between instructor and student as direct, personal, and individual, as time and circumstance permit, although students meet in groups for much of the activity program.

To recognize that each man is a separate distinct personality with individual needs, and to respect that personality. To gain the student's confidence increasingly. To help the student feel that no matter how large the institution, he is not lost and is free to come to you with personal problems at any time, knowing he will receive sincere and cheerful attention.

b. Determining Causation. To determine first in every case if possible the cause of the particular handicap of the individual.

²⁵ Courtesy of Harlan G. Metcalf, Ohio State University.

This information may be obtained through personal conferences with the student, by contacts with the university physician, through the Student Medical Service, the coöperation of many of the leading orthopædic surgeons and in many other ways.

c. Prevention. To prevent weak feet from becoming flat and painful.

To prevent final curves from becoming more exaggerated.

To prevent the overcontraction of hypertonic muscles when their antagonists have become paralyzed by poliomyelitis, or injured in some other way.

To prevent visceroptosis and other troubles from developing in an individual with relaxed abdominal walls.

To prevent the development of adhesions after appendectomy and many other difficulties.

d. Correction. Correction is mainly the sphere of the orthopædic surgeon and medical man and physical educators should have little to do with it. Probably, however, the physical educator specializing in the individual phase can efficiently achieve a large degree of correction of the following nature:

Correction of *functional* flat foot and weak feet and arches, both longitudinal and metatarsal, if cause has been determined and eliminated.

Correction of *functional* defects of posture if cause has been determined and eliminated.

Correction of *some* causes of complete and incomplete indirect inguinal hernia can be affected.

Correction in large measure at least of many visceroptosis cases under doctor's supervision and help with dietary.

e. Reconstruction. Under this head might be listed such objectives as:

To reëducate muscles after accidents in which bones have been broken, or muscles cut or crushed.

To condition gradually the tissues of post-operative cases, and prevent development of adhesions.

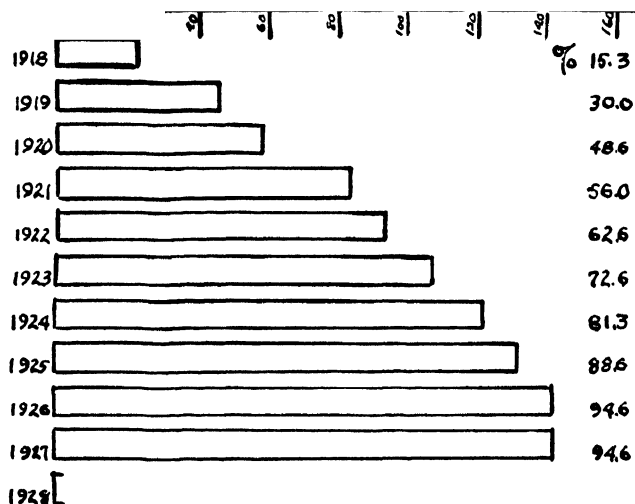
To adapt activities to needs of convalescent individuals not yet strong enough to go on with the regular required physical education courses.

f. Protection. To protect by observation, supervision, and limitation of activities, cardiac cases, hernia cases, thyroid cases, many joint injuries and cases of crippling deformity.

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To give protection, and a specifically adapted program for students temporarily disabled (accident, sprain, convalescent, etc.) for whom the regular courses in physical education would be detrimental.

To offer protection for individuals whose condition requires medical or surgical treatment for correction until the feasible time arrives for radical treatment.



Growth of Physical Education Badge Tests in Maryland Schools

g. Education. To the following objectives dealing with the educational aspects of the Individual Physical Education program, particular emphasis should be given:

To develop in all the students an intelligent understanding of their present defects, the causes of these defects and the reasons for the particular activities prescribed.

To develop in the individual the kinæsthetic sense and habit of correct body mechanics which will contribute to his greatest efficiency.

To arouse sufficient interest of the students that they will carry on the prescribed activities beyond the classroom.

To bring as many of the students as possible as soon as possible to that standard of physical efficiency that they may return to the regular required courses of physical education.

To substitute wherever possible game and sport activities in place of more artificial calisthenic exercises (provided they are found equally valuable by kinesiological and physiological analysis) thereby capitalizing interest and increasing the carry-over value.

To invent games where they are lacking, physiologically and kinesiotogically sound from the standpoint of individual needs.

To find and teach to each handicapped individual one or more sports safely applicable to his specific condition. This should be a sport in which he can participate with great benefit throughout his entire life, and a means of counteracting the inferiority complex which tends to be prevalent in those physically defective.

To help each handicapped individual better to adapt himself to life conditions in and out of school.

If it is considered a worthy objective in physical education to teach sports that the student can use after college days and all through life, how important also it is to give the physically handicapped individual a few sports that will make his life richer and happier while it lasts. Much time should be devoted to teaching such sports as archery, archery golf, horseshoe pitching, swimming, fly casting, volley ball, deck tennis, hiking, golf and other activities available or to be invented, adapted to individual needs in each case.

h. Coöperation. To demonstrate the closest possible co-operation between all of the health agencies.

We have already indicated that the boundaries and prescriptions for activities should be set forth by the expert diagnostician. The dangers in post-morbidity cases have been referred to on page 314. Specific help in the selection of activities to meet these needs will be found in the chapter on Health Coördination.^{26, 27, 28} Special schools for cripple children are in operation in many cities. Notable among these are the schools in Newark, New Jersey, and Cleveland, Ohio.

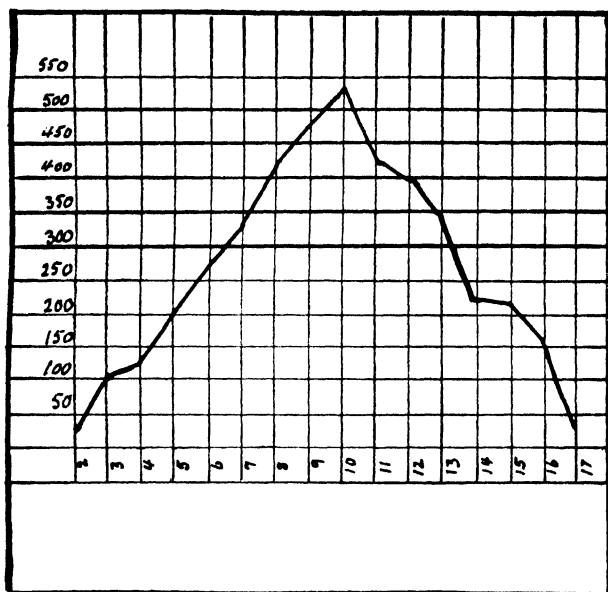
²⁶ James Frederick Rogers, *Schools and Classes for Delicate Children*, Bulletin No. 22, Department of the Interior, U. S. Government Printing Office, Washington, D. C., 1930.

²⁷ James Frederick Rogers, "Physical Defects of School Children," *School Health Studies*, No. 15, Department of the Interior, U. S. Government Printing Office, Washington, D. C., 1929.

²⁸ "The Hard of Hearing Child," *School Health Studies*, No 13, Department of the Interior, Washington, D. C., July, 1927.

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2. *Activities for Individuals Low on the Neuro-Muscular Level.* Individuals may possess the organic power to enter into certain activities and yet lack the neuro-muscular skills. Those who vary from the normal group so much that they become conspicuous should be given special activities and additional time for the purpose of acquiring these skills. Disregarding an individual's



Showing the Age Distribution of Children Attending the Playgrounds, Des Moines, Iowa; 1925

lack of skill may cause him to become so self-conscious that he will not enter into group activities for fear of ridicule.

3. *Activities for Individuals Low on the Interpretive-Cortical Level.* These individuals are at times referred to as sub-normal. Relatively simple activities should be chosen to meet their needs as it is impossible for them to enter into activities which involve detailed explanation. For the same reason activities given to command are not advisable. Much of the lack of coordination in such activities is due to the inability to think quickly. Rhythmic activities, stunts, chasing and fleeing games and the more simple athletic activities are well adapted to this level.

4. *Activities for Individuals Low on the Emotional-Impulsive Level.* Individuals who have not developed emotional attitudes to play in highly organized athletic contests which require a careful adherence to rules should be given personal attention by the director of activities. At times it is possible to assign such an individual to more simple games where the chance of violation are not so great. At other times close supervision of the games by the director will suffice.

B. Variations Which Are High on the Distribution Curve. Individuals may be high on the distribution curve on any of the four levels indicated above. Individuals who are high on the organic level may be in special need of activities on the neuro-muscular or the emotional-impulsive levels. Likewise those who are very skillful may be greatly in need of activities which offer the opportunity to develop good sportsmanship. If individuals are high on any one level they should be assigned activities which will give them practice on the other three levels (page 6). Individuals who are high on the organic and neuro-muscular levels may be utilized as leaders on these levels but this should not be used to excuse them from activities and hence deprive them of some of the opportunities for development which they need. These same people may be lacking on the emotional-impulsive level.

VII. ACTIVITIES MUST BE CHOSEN FROM A DUAL STANDPOINT

The activities of the curriculum must be chosen from the standpoints of protection and guidance.

A. Protection of Children Must Be Thought of in Terms of the Four Levels of Development.

1. *Protection on the Organic Level.* Children must be protected from activities which handicap the organism. For those who have auditory, visual, cardiac, or other defects or handicaps limitations must be made.

2. *Protection on the Neuro-Muscular Level.* Protection must be thought of on this level for those individuals who have insufficient skill to enter activities and who might injure themselves in the very act of participation. Skill is dependent upon power and if sufficient power is not acquired by the individual the very entry into activities which require high coördination is dangerous. A progressive program whereby children acquire power is necessary.

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3. *Protection on the Interpretive-Cortical Level.* The child must also be protected from being thrown into activities in which he has not had sufficient previous experience to interpret on an equal basis with others in the group. Some degree of equality in past experience is essential for protection.

4. *Protection on the Emotional-Impulsive Level.* Protection on this level, while little thought of in the past, is of utmost importance. Children should not be required to enter into activities which are too difficult for them. By so doing they become self-conscious, discouraged and extremely sensitive to the opinion of the group. On the other hand, constantly being in activities which do not require an individual to extend himself is equally dangerous. An individual in this situation becomes content with the good when the best should be his goal. He becomes accustomed to *getting by*; hence, his latent possibilities are never aroused. Probably infinite harm is done to many children by protecting them from difficult tasks.

B. Guidance of Children. All the protective items indicated above are negative. They merely make it possible for each individual to start at *scratch*—in an educational program. The creating of changes and the guiding of an individual from his present achievement level to his ultimate capacity level is the primary function of education. Physical education activities should be chosen with this always in mind. The curriculum of physical education and health should be studied from this viewpoint.

VIII. CURRICULUM CONSTRUCTION

A. Curriculum Must Meet Changing Needs. Curriculum construction is a continuous process. The curriculum is never completed. It becomes a continued study of the needs of individuals and the selection of activities to meet these needs. As previously described the curriculum is a grouping of activities which, under proper leadership, gives promise of effecting certain changes in behavior. The activities of the curriculum must be so selected that the skills which are necessary to the outcomes for which the curriculum is chosen become automatic. The curriculum also must be organized to furnish an abundance of experiences whereby products may be judged in terms of life objectives (page 121). It must be an arrangement of activities in an orderly fashion in terms of the learner's previous experience and capacity. In other words, the activities must challenge the individual and yet not be beyond the learner's grasp. The activities of the curriculum must challenge

an individual to reach just beyond his grasp. It is in the reaching that development takes place.

It is to be remembered that the curriculum of activities organized by the school represents only one of many groups. The church has a group, the home, the pool room, the back lots and the streets all furnish opportunities for activities. The heavy responsibility is placed upon leadership in the school curriculum because one of the primary objectives of the institutional school is the influence which participation in its activities has on the individual as he touches the other groups. The institutional school which society has set up, together with the home, the church and other social organizations must color the individual's reactions to anti-social activities. Hence the school must exert a year-round influence. The school under modern urban conditions must become a year-round institution and must supply the educational opportunities which the modern city has squeezed out of the lives of children.

The physical education curriculum, to be effective, must involve not only the teaching of activities during the school day but conducting laboratory activities which cover a large portion of the child's free time.²⁹ Curriculum construction is a deliberate procedure by which adults attempt to influence the total behavior of coming generations.³⁰

B. Administrative Steps in Continuous Curriculum Construction.

1. *Authorization by Superintendent of Schools for the Formation of Committees.* The director of physical education and health should receive authority from the superintendent or his representative for the establishment of machinery for continuous study. The following organization appears to be the best procedure:

a. Senior High School. The senior high school curriculum committee should consist of all the special teachers in the high school. The men should be organized in one group and the women in another.

b. Junior High School. This organization should be similar to the one in the senior high school.

c. Upper Elementary Grades. The committee in the upper elementary grades should consist of outstanding teachers in these

²⁹ *The Superintendent Surveys Supervision*, National Education Association, Eighth Yearbook, Department of Superintendence, Washington, D. C., 1930, p. 177.

³⁰ *The Foundations of Curriculum-Making*, National Society for the Study of Education, Twenty-sixth Yearbook, Part II, Public School Publishing Co., Bloomington, Illinois, 1930.

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grades, with a member of the supervisory staff as ex-officio chairman.

d. *Kindergarten-Primary.* This organization should be similar to that in the upper elementary grades.

2. *The Organization of Committees.* The committees suggested by the director of physical education and health and authorized by the superintendent should be called together and organized. In all probabilities the selection of one of their own number as committee chairman would be advisable.

3. *The Procedure of the Committees.*

a. The committee should obtain a comprehensive view of physical education and health from the standpoint of modern education as represented by the age and capacity needs of the children in the various grades. This viewpoint could be obtained by a thorough evaluation of all literature in the field, a study of best practices in the city and in other parts of the country and conferences with frontier thinkers in the field. From this should be evolved material for the next step.

4. *A Clear Statement of Objectives.* The committee should state both the immediate and the remote objectives. It should give consideration to the child's objective interest in activities and to the leader's objective interest in outcomes.

5. *Suggested Means of Obtaining These Objectives.* Here should be listed, in terms of activities, the means by which objectives may be reached. This would involve a syllabus or course of study by cycles, including suggestions as to the following: time allotment; specific purpose of this unit of the course of study; an orderly arrangement of activities; special methods relative to the application of activities, not only to the mass of children but to those with marked individual differences; and, finally, suggestions relative to standards of attainment. In all the steps of this division experiments should be conducted in the school to test the validity of the procedure.

6. *Testing the Procedure.* Suggestions of activities and methods should be put into mimeographed form for experimentation on a scale involving ten per cent of the schools of the city.

7. *Final Preparation of the Curriculum.* Upon the results of the experimentation in the schools the curriculum should be put into form for the use of the entire city. The curriculum should be so printed that it does not give the appearance of permanency. A complete revision should take place every few years.

8. *Organization for Continuous Study.* A committee should be constantly trying out new procedures and new arrangements of activities. These should be suggested to the school as rapidly as they have proved their worth so that they may be added to the course of study by means of supplementary mimeographed sheets until a revision is made. In this way continuous curriculum study could be made effective. The National Education Association suggests the following steps for a continuous curriculum study:⁸¹

Permanent curriculum committees.

Research department constantly checked up on local education shortages.

Department of curriculum revision with full-time director.

Supervisors head local curriculum revision work.

A curriculum expert is retained for lectures and manuscript consultation.

Survey tests given at regular intervals.

Service sheets circulated among all teachers recommending changes and suggestions to be added each semester.

Curriculum bulletins containing suggestions for using the new courses of study, descriptions of projects developed by building or individual teachers, and reports written by individual teachers illustrating units of work covered by certain sections of the course of study.

Courses are discussed and interpreted at supervisors' meetings and at principals' meetings.

Staff of consultants work as need arises.

Professional improvement courses, dealing with various phases of the curriculum, are offered under the supervision of various members of the local public school staff or outside experts.

Research studies, made by teachers with the advice of supervisors or members of the research department, contribute to the development of a teacher-attitude toward curriculum problems that is critical, open-minded, and coöperative.

This curriculum construction offers the finest opportunity for improvement of teachers in service because it constantly keeps before them the effects of activities on individuals. It is a constant spur to the supervisors and administrators to adjust the activities to the needs of children. It affords an opportunity to discard activities of little value and unsound methods. It affords a chance for the selection of activities which challenge children, together with administrative procedures which bring these children within striking distance of success.

⁸¹ *The Superintendent Surveys Supervision, op. cit.*, pp. 182-183.

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PROBLEMS

1. A committee from the High School Principals' Association has requested you, as the city director of physical education and health, to evaluate the dancing and the stunts, and to arrange the various elements of these activities from the simplest to the most complex. The principals are making this request in order that activity assignments may be made to pupils progressively throughout the four years of high school. Outline the steps you would take to determine this progression.

2. As the director of physical education of a high school you have become somewhat skeptical as to the value of teaching game elements. You have a feeling that these elements can be taught best by actually playing the game rather than merely practicing the elements. You want to make a study of comparative methods. Outline the procedure of such a study.

3. The principal of your school has had many complaints from students who are taking corrective gymnastics. He claims that the children are not interested, that they dislike being marked as unfit, and in other ways are dissatisfied. He has asked you, as a specialist in the field, to study the situation and attempt to classify the activities so that no stigma will be attached to them. He has also asked you to select some activities that would arouse interest on the part of the students and at the same time would lose none of their value. He wants you to experiment on this project for a year. How would you proceed?

PRINCIPLES

1. Teaching health should be thought of in terms of the power building activities, health protection and the acquiring of desirable health habits.

2. Activities should have psychological drive.

3. Activities should be thought of as the means by which an individual raises his present achievement level to as near as possible his ultimate capacity level.

4. Activities must be selected from the standpoint of their effect on organic, neuro-muscular, interpretive-cortical and emotional-impulsive development of an individual.

5. Individual activities should have an interest drive similar to that contained in group activities.

6. Curriculum construction should be a continuous process of adjusting activities to the needs of children.

7. The activity program of the school should be largely judged in terms of the influence which it has on an individual's choice of activities for his leisure time.

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CHAPTER XI

CLASSIFICATION OF CHILDREN

The fourth element in the teaching situation is the classification of children.¹ The other three which we have discussed are the providing of *time* and *place* in which to conduct activities and the classification of activities.

Classification is for two purposes; the *protection of children*, and the *grouping of children to secure maximum efficiency in teaching*. Classification tests are a means to an end. They have no educational value within themselves—but exist to help establish an educational procedure.

I. PROTECTION OF CHILDREN ²

Practically all tests, even those of the mental type, have as an objective the protection of the child. Children should be so grouped that they do not feel conspicuous either from the inferiority or superiority standpoint (page 129). There is an additional need for protection where big muscle activity tests are given. Many conditions exist which make it dangerous for an individual to enter such tests. Any number of the so-called *entrance* or *capacity* tests which have been given by schools have permanently injured individuals. These classification tests have included such activities as swimming, running, feats of strength and game elements. The very participation in these, under the social drive to make a good showing, has caused serious injury. A thorough health examination should be a prerequisite to such a procedure. Fatigue under normal conditions may not injure an individual, while under other conditions it may be serious, but exhaustion is likely to leave permanent scars.

Although McKenzie, the English physician, has said, "The normal heart cannot be injured," few people presume to define the *normal heart*. Children under the urge of over enthusiastic playmates or unskilled leaders may seriously injure themselves, although it is doubtful if any child left to himself will engage in

¹ Marie M. Ready, *Physical Education in City Public Schools*, Department of the Interior, Bureau of Education, Washington, D. C., 1929, p. 23.

² James Frederick Rogers, *Physical Defects of School Children*, Department of the Interior, Washington, D. C., 1929.

vigorous activities to the point of exhaustion. The first step in classification therefore is the sorting out of individuals who vary so widely from the normal that they are unable to safely participate in the activities of a physical education program.

A. Organic Variation. The California State Board of Education defines organic disability as follows:³

As the word *disability* under the exemption clause of the physical education law is susceptible of two interpretations, temporary and permanent disability, and as disability refers to the condition of the individual to be benefited by physical education activities, therefore it should be understood that individuals who are injured or ill are entitled to temporary excuses, but there is no child able to attend the school regularly who will not benefit by some form of properly adapted physical education procedure.

It is, therefore, recommended that no excuses from physical education for a term be granted unless the instructor in charge of physical education is unable to adapt a program to the individual's needs, or a local physician is not available who can make proper recommendations.

This phase of classification should be conducted by a skilled physician. His relationship to the director of physical education and the lay teacher is indicated on page 319.

1. *Temporary Variation.* Great care should be exercised when children enter vigorous activities immediately following certain organic or functional disorders. Care should be particularly exercised following all post-morbidity cases, and other disorders such as post-tonsil, post-surgical, post-appendicitis, and post-hemorrhoids, and especially in all types of sore throat, infections, diarrhea, breaks, fractures, dislocations, abrasions, etc. It is quite evident that such cases cannot wait for the yearly health examination nor even for the weekly visit of the nurse. They must be detected at once by the room teacher and the director of physical education.

Forty-four out of forty-eight school physicians responding to a questionnaire sent out by the White House Conference on Child Health and Protection recommended:⁴

The training of teachers for the detection of signs of communicable disease and of gross physical defects should be required. The importance of this cannot be overestimated for neither diseases nor defects await the annual

³ N. P. Neilson and Winifred VanHagen, *Physical Education for Elementary Schools*, A. S. Barnes and Co., New York, 1930, p. 4.

⁴ *White House Conference on Child Health and Protection*, Section 111-C, Committee on the School Child, Report of Sub-committee on Legislation, Washington, D. C., 1930, p. 9.

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(if that often) advent of the physician or even the monthly or weekly visit of the nurse. Moreover about twenty per cent of children are absent at the time of the examination and new pupils come in during the year. The teacher is a foster parent on a large scale and the keener the eyes and ears of that parent for signs of defect or disease the better off her family if she reports her observations promptly to the medical inspector or nurse. Moreover, when she resigns her teaching position for that of real parenthood her training along this line will serve her better than most of the "courses" she will have had.

In all cases where there is danger of permanent injury to the child the director of physical education should check constantly with the physician.

2. *Permanent Variation.* The distinction between temporary and permanent variations is very difficult to describe. Temporary variation may become permanent. Variations which are apparently permanent may change. Decisions regarding these types of variations of necessity must lie in the hands of the expert physician. The items to be checked in the examinations for these permanent or temporary variations are difficult to determine, because of the varied conditions over the country (suggested list of items, page 443).

B. *Other Types of Variations.* The detection of variations while extremely important on the organic level also has great significance on the neuro-muscular, interpretive-cortical and emotional-impulsive levels. An individual who varies from the group in neuro-muscular skills needs individual attention. The variations on the interpretive-cortical level have been covered in as complete a manner as possible in the literature dealing with mental tests. On the emotional-impulsive level variations need attention because the retiring, sensitive individual is not capable of participation in the central tendency group activities. Mass education has too often subjected sensitive individuals to the ridicule of the group in such a way that their spirits have been broken. Attention should be drawn to the needs of individuals who tend toward the extreme upper part of the distribution scale as well as those at the lower.

C. *Administration of Examinations to Determine Variations.* Three types of examinations should be considered in determining the ability of the child to participate in activities:

1. *Inspection.*⁵ The inspection is of daily importance and

⁵ A joint committee on health problems in education issues instruction for the assistance of the lay-teacher in giving the health inspection. This set of instructions should be of great assistance to the director of physical education in schools where there is not an adequate medical service.

hence must be conducted by the grade teacher in the elementary school and the home-room teacher in the junior and senior high schools. This teacher must be able to recognize the common pathologies as well as gross bodily defects. Specific training and clinical experience should be given all teachers for this service.

a. Yearly. In the absence of an organized health service a complete inspection should be made yearly by the teacher. A form is suggested on page 443.

b. Daily. A daily inspection, not once a day but any time during the day, should be made covering items which have immediate bearing on the health of the child and others in the class room. The following should be noted particularly:

(1) Rash—inflamed skin may indicate measles, scarlet fever, chicken pox or other disorders.

(2) Nose and throat—heavy discharge or stoppage.

(3) Sore throat—may be a sign of diphtheria.

(4) Post morbidity cases.

All of the above cases should be referred to the school nurse or physician immediately or, in the absence of these, sent home with a recommendation.

The teachers should also be on the lookout for signs of strain the cause of which may be due to hereditary or acquired defects, or more specific lesions such as defective sight or hearing or it may be sensitiveness or shyness on the part of the child. The teachers may be able to remove the strain in certain instances but in others the assistance of a specialist may be required.

2. *Physical Examination.* The purpose of this examination is to determine the capacity of an individual as a basis for the establishment of an educational procedure. It should be conducted by a director of physical education who has had clinical experience. With proper training, as is indicated on page 418, this director should be able to test certain capacities. The following tests and examinations could be used:

a. Nutrition tests.

b. Achievement tests.

c. Strength tests.

d. Cardiac functional tests.

e. Time reaction tests.

f. Anthropometric measurement tests.

g. Orthopædic examination.

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h. Organs:

Eye
Ear
Nose
Throat
Glands

i. The examiner should also be on the lookout for obvious mental, neurological, and affective disorders.

3. *Medical Examination.* The purpose of this examination is to discover pathological defects, to interpret their history and to indicate the boundaries of activities in a power building program.^{6, 7, 8, 9} Note page 319 with reference to administration.

The medical examination conducted upon a yearly basis and upon the return of the child from absence from school on account of disability should aim to do two things: first point out to the individual past, present and future danger signals and, second, by means of a diagnosis make certain activity and therapeutic recommendations or prescriptions. This examination should be very closely tied up with the administration of rules and regulations of the local and state boards of health relative to communicable disease. In this examination special attention should be given to the possible presence of a psychosis or nervous disorder. The boundaries of an activity prescription should be here indicated (page 319). The medical examination may be administered in several ways (form, page 440).

a. Home Physician. The child on entering school may be required to bring this medical examination blank filled out by the family physician (coöperative plan, page 444). These blanks are subject to review by the school physician.

b. School Physician. Where the school employs a medical staff the examination may be administered by it. This staff operates in an educational procedure and is responsible to the educational authorities, as in Binghamton, page 180; Cleveland, page 172; and other places.

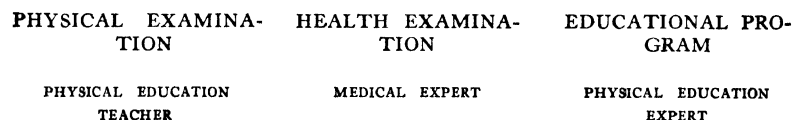
⁶ *Journal of Physical Education*, Vol. XXVII, No. 6, Physical Directors' Society of the Y. M. C. A., New York, February, 1930.

⁷ *Journal of Physical Education*, Vol. XXVII, No. 7, Physical Directors' Society of the Y. M. C. A., New York, March, 1930.

⁸ Thomas D. Wood and Hugh Grant Rowell, *Health Supervision and Medical Inspection of Schools*, W. B. Saunders Co., Philadelphia, 1928.

⁹ James Kerr, *The Fundamentals of School Health*, The Macmillan Co., New York, 1927.

D. Relationship of the Expert in Physical Education and the Lay Teacher to the Medical Expert. The medical expert occupies a position between the expert in physical education and the lay teacher as is indicated in the following figure:



The teacher of physical education recognizes gross defects and common pathologies and guides the individual to the medical expert.¹⁰

The medical expert removes handicaps and points out danger signals, past, present and future. He makes an expert organic and functional diagnosis and gives an activity and therapeutic recommendation, indicating the boundary of activity. He then sends the individual to the expert physical director.

The director of physical education gives individual activities to rebuild power and regain the joyous zest of life. He gives activities within the boundary prescribed by the medical expert and checks with him from time to time.

II. GROUPING OF CHILDREN TO SECURE MAXIMUM EFFICIENCY IN TEACHING

The second object of classification is to group the children so that the maximum efficiency in teaching can be secured. This assumes more or less of an homogeneous grouping, although there is much evidence to indicate that a certain amount of heterogeneity is of value. This makes possible rotation of the leadership-follower situations. In a group where there are varied abilities it is possible for an individual to be leader at one time and follower at another. Certainly the homogeneity should extend to the point where the capacity of the individuals would be fairly evenly matched so that there would be no possibility of physical injuries in body contact games such as basketball and football.

This grouping of individuals to secure maximum efficiency in teaching involves two principles; first, classification of the entire student body into groups and, second, classification within the groups.

¹⁰ If no gross defects are found the child goes into the regular program and visits the home and school physician at regular times.

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A. Classification into Groups. There have been in the past numerous methods by which groups could be classified.¹¹ Those which to-day appear to have the largest promise are as follows:

Physical capacity tests.^{12, 13}

Cardiac functional tests.¹⁴

Age, height, weight charts.¹⁵

Leap meter tests.¹⁶

B. Classification within the Groups. It is hardly likely that it will be possible on a large scale to classify pupils in the high school from the standpoint of physical education and upon this basis assign them to instructional periods. This would mean the entire reorganization of the school around the program of physical education. Students would first be assigned to the period in physical education and all other schedules would have to be arranged with this in view.

Classification, therefore, will have to be carried on within the group. This would make it possible to take into a group people with rather wide ranges of ability. By the classification of this group into squads it would be possible to organize efficient teaching units. This type of classification could be arranged as follows:

Physical capacity tests.^{17, 18}

Achievement tests.¹⁹

Sport technique tests.²⁰

Brace motor ability tests.

It is not assumed that it is possible for the teacher to be guided wholly by the results of the above tests. The tests are not organized for the purpose of entirely eliminating the teacher's judgment but to assist him in making judgments. The past experience of the individual is an element which should receive consideration. The skilled teacher will make it possible for the children to be placed in situations where they can make maximum progress.

¹¹ Jay B. Nash, *Organization and Administration of Playgrounds and Recreation*, A. S. Barnes and Co., New York, 1928, p. 252.

¹² Frederick Rand Rogers, *Physical Capacity Tests*, A. S. Barnes and Co., New York, 1931.

¹³ John F. Bovard and Frederick W. Cozens, *Tests and Measurements in Physical Education*, W. B. Saunders Co., Philadelphia, 1930, pp. 52-61.

¹⁴ *Ibid.*, pp. 62-80.

¹⁵ Jay B. Nash, *op. cit.*, p. 250.

¹⁶ John F. Bovard and Frederick W. Cozens, *op. cit.*, p. 141.

¹⁷ Frederick Rand Rogers, *op. cit.*,

¹⁸ John F. Bovard and Frederick W. Cozens, *op. cit.*, pp. 52-61.

¹⁹ *Ibid.*, pp. 81-131.

²⁰ *Ibid.*, pp. 146-154.

III. EQUIPMENT NEEDED FOR INSPECTION, EXAMINATION AND CLASSIFICATION

A. Classification Equipment.

1. *Cozens' Athletic Ability Tests*. Battery A
Gymnasium suits and tennis shoes
Football field marked off at 5-yard intervals.
5 Footballs
5 Baseballs—12" outseam
Steel measuring tape
Running track— $\frac{1}{4}$ mile
Broad-jumping pit—the long dive and standing broad
jump may be done indoors on mats piled 4 high
Stop watch
3 hurdles
1 set of parallel bars
2. *Brace Motor Ability Tests* (indoor)
Stop watch or ordinary watch
Chalk
Steel measuring tape
Tennis shoes
3. *Franzen's Growth and Nutrition Tests* (indoor)
All instruments may be procured from the American
Child Health Association, 370 Seventh Avenue,
New York
Wooden slide caliper for measuring chest width
Chest depth caliper (metal)
Subcutaneous tissue caliper
Gulick's anthropometric measuring tape
Celluloid ruler
4. *Roger's Physical Fitness Test and Strength Index*
(indoor)
Tennis shoes and gymnasium clothes
Hand dynamometer
Leg dynamometer
Wet spirometer with wooden mouth-pieces
Parallel bars
Flying Rings
Scales
Stadiometer
Leap meter (a square 18x18" marked off on the floor)
(a leap meter)

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5. *California Decathlon* (for boys) (indoor or outdoor)

Elementary grades

Rings

Climbing rope

Equipment for potato race

High jump

Parallel bars

Broad jump—running and standing

Running track

Basketballs and baskets—2½' circle 5' from floor

Soccer ball

Baseballs and canvas curtain with bull's-eyes

Swimming pool

High School

Add to the elementary the following:

Low bar

8 lb. shot 5¾—7' circle

Footballs

6. *Detroit Decathlon*

High bar

Broad jump pit—or “take off” indoors with mats

Parallel bars

Shot

High jump standard

Basketballs

B. Equipment for Health Inspection Room.

1 White enamel stool—white line No. A-200—adjustable—21" to 27"—Scanlon Morris Company

1 White enamel dressing pail—3 gal. with cover and drain, No. A-256—Scanlon Morris Company

1 White enamel basin (round 12") No. 2-R 1545—Betz Company

1 White enamel table (Alba 27" x 42")

1 White enamel wall mirror

1 Desk—flat top—small—56" x 32"—No. 307—Cleveland Desk Company

1 Desk Chair—No. 2003-½—Taylor Chair Company

1 Reed Couch (woven cane) No. 747—Heywood and Wakefield Company

4 Screens (3 panels)—double faced—white—high with double acting hinges

1 Scale without measuring rod—Fairbanks or equal

CLASSIFICATION OF CHILDREN

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SQUAD RECORD CARD

OAKLAND PUBLIC SCHOOLS

DEPARTMENT OF PHYSICAL EDUCATION

Name..... Squad.....

Classification A B C D E F G H (Circle Classification)

Spring Fall 19..... (Circle Term)

Grade..... Posture.....

Age	Yrs.	Mos.	Exponent		First Record	Last Record
Height	Ft.	Ins.			(Circle	grading)
Weight		Lbs.		Passed triple test....	1	1
"Normal" Wt.		Lbs.		" standing and	2	2
Weight Zone		Lbs.		marching only	3	3
				" standing only	4	4
				Failed in standing...	4	4
Sum of Exponents				Very poor.....	5	5
Events			100% Standards	First Record	%	Last Record
						%
1.						
2.						
3.						
4.						
5.						
Total % (Maximum 500%)					%	%

Squad Leader.....

- 1 Measuring yard stick (fastened to wall)
- 1 Bench for children—standard detail
- 1 Dressing table—New York Utility Stand—with steel top—No. 6-R 787

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- I Illuminated Eye Chart Rack with artificial lights—
Solomonson Optical Company
- I White Cupboard Standard Detail No. 30
- I Bulletin Board—standard detail—white

C. Health Inspection Supplies.²¹

- I scissors—small surgical, 1 scissors—small general, 1
forceps, 1 knife, 2 clinical thermometers, ear syringe
(glass), alcohol, iodine, mercurochrome, tincture of
larkspur, oil of cloves, cotton, bandages, adhesive
tape, safety pins, tongue blades, applicators, medi-
cine droppers, three glass jars, fine combs, shelf
paper, large glass stoppered bottles, small glass
stoppered bottles, silver nitrate sticks, boracic
powder, yellow oxide mercury, sulphur ointment,
ammoniated mercury, zinc oxide ointment and
boracic ointment.

IV. SUMMARY

The following indicates some of the limits of the testing procedures.

I. What does he know?	Knowledge tests about activity
II. What can he do?	Strength tests Cardiac functional tests Achievement tests Neuro-muscular tests Sport technique tests Nutrition tests Social aptitude
III. What will he do?	X—the unknown quantity

THE THREE *WHATS* OF MAN

In the above tests of man the unknown quality "X" becomes the determining factor. What will he do or what can be predicted? The third and fourth levels of man (page 6) are not as yet subject to measurement. What he will do depends upon what he wants to do and his wants are not measurable.

²¹ Equipment and supplies listed as standard by the Cleveland Public Schools.

PROBLEMS

1. You are a supervisor in a number of elementary schools in a small city. The school does not employ a medical adviser and there are no funds for the work. The city has a very progressive medical association and a very fine health center operated under the board of health. Outline a plan, on an experimental basis, for having the children examined, to show the board of education the value of a medical department.

2. The elementary teaching association has requested you, as the director of physical education and health, to outline the procedure for a ten-minute morning inspection. They are particularly interested in symptoms of communicable disease and post-morbidity danger signals. What procedure would you recommend?

3. You are a part-time director of physical education and health in a consolidated school of one hundred students. You have fifty students in the play-yard at one time; with a four-year range in age and a six- to seven-year range in ability. Outline an organization for effective teaching of this group.

PRINCIPLES

1. Classification of children has no value per se. Its object is merely to improve teaching procedures.

2. Classification should point out an individual's need for special guidance in the activity program.

3. Individual needs should be considered for those who are either high or low on the distribution curves in organic, neuro-muscular, interpretive or impulsive power.

4. The lay-teacher, the director of physical education and the physician are each responsible for phases of classification.

5. Individuals should be so grouped as to secure maximum efficiency in teaching.

6. Classification should be thought of in terms of the assignment of individuals to classes and to small groups within the classes.

7. In each individual there exists an unknown quality X which it is impossible to measure and yet which becomes a very important factor in determining what he does.

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CHAPTER XII

ORGANIZATION OF LEADERS

We have already considered the problem of time and of space in which to conduct activities, classification of children and activities. We now come to the fifth element of the teaching situation—the problem of leadership. Without question this becomes the most vital element to be considered.¹ Leadership becomes an objective from the standpoint of society because it is by means of it that standards of behavior are passed from one generation to another. The test of adult leadership is—what do the children do? Any criticism of the children of the present generation is merely a reflection of adult conduct. The phenomenal growth of physical education as indicated by the increase in the number of leaders is seen on page 48. The following table shows this rapid expansion:

TABLE XXXIX
INCREASE IN PART AND FULL TIME WORKERS IN CALIFORNIA ²

<i>School year</i>	<i>Number of high schools reporting</i>	<i>Instructors Part time</i>	<i>Instructors Full time</i>	<i>Total</i>
1919-1920	288	462	143	605
1920-1921	299	464	205	669
1921-1922	307	560	295	855
1923-1924	324	478	380	858
1924-1925	333	517	456	973
1925-1926	338	518	589	1,107
1926-1927	346	524	638	1,162
1927-1928	357	604	700	1,304

This growth is well illustrated by the increase in the State of New York (page 191); the State of Minnesota (page 336); and also in the City of Detroit (page 345).

¹ Marie M. Ready, *Physical Education in City Public Schools*, Department of the Interior, Bureau of Education, Washington, D. C., 1929, p. 99.

² *Biennial Reports of the State Supervisor of Physical Education*, State Department of Education, Sacramento, California, 1927-1928, p. 166.

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TABLE XL

INCREASE OF LEADERSHIP IN MASSACHUSETTS ³

	1922	1927
Directors of Physical Education—Elementary schools	83	409
Directors of Physical Education—Junior high schools	56	197
Directors of Physical Education—High schools	62	180
Total	201	786

Details of participation where ninety-five per cent of the student enrollment participated in intramural games is noted in the following extract from the annual report of Dr. Earl H. Coleman, Director of Health and Physical Education, Fresno Public Schools:

Touch Football—40 teams; games played—400. Basketball—110 teams; games played—289. Volley Ball—110 teams; games played—289. Baseball—34 teams; games played—174. Horse Shoes—88 teams; games played—314. Hand Ball—99 teams; games played—318. Pentathlon—358 pupils; each participating in 5 events.

In the conduct of institutional education, in camps, in the home, the strategic problem as attested by questionnaires, literature and personal inquiry is leadership. Leadership must build through experience the ability to make judgments. Leadership views an individual as a whole, an organismic unit. There are parts of this whole, as indicated in the four levels of development but integration is the ultimate objection. The parts of a mosaic have no meanings but meanings are resident in the total picture—the gestalt.

I. TWO TYPES OF LEADERSHIP

Two types of leadership must be recognized; first, that in which the leader coaches or drills, involving personal contact of teacher and child, and second, that in which the leader sets up a situation in which a child acts. It is apparent at once that most of the child's behavior depends upon the second type. The community sets up situations along the railroad track, wharves and the streets, on the roofs of buildings, around the magistrate courts, and in the newspapers in which the child is stimulated to act. He acts in a great arena where the stage is set by unseen hands and yet he is as much or even more the victim of the cause and affect in a situa-

³ Received from Carl L. Schrader, State Supervisor of Physical Education, Massachusetts.

tion as when a leader sets up a drill situation in which to change his behavior.

II. STATE REQUIREMENTS FOR LEADERSHIP

States have set up for the public school minimum standards of training by which leaders are certified.

A. General Certification. Practically all of the states have set up a type of general certification. After fulfilling such requirements an individual is eligible to teach in the schools in the state. The assumption is that the training is sufficiently general for an individual to be able to teach any subject. In many states the



Growth of Physical Education Teaching Staff in Massachusetts, 1922-1927

granting of a liberal arts degree fulfills this requirement. This is infinitely better than simply requiring a high school diploma but it leaves much to be desired.

This type of certification has militated against physical education because colleges of liberal arts have not given training in physical education. Hence, an individual studying English, history or languages has become certificated and because of possible efficiency on athletic teams has taught physical education in the secondary schools. He sometimes combines physical education with his major subject in order to increase his income. In all events he

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has had a very limited view of the profession of physical education. This is one of the reasons why we have at the present time an undesirable athletic situation in many of our secondary schools.

1. *Majors in One Subject.* The only possible solution of this problem is the requirement of majors and minors in this general training so that some type of specialization is required. A number of states have made a start in requiring specialization for general certification. Witness the rules in the following states:*

Maryland.—Completion of a standard four year high school course or equivalent. Four years of additional work of college grade, approximately a year of which was in physical education and 200 recitation hours in education including at least ten periods of supervised practice teaching. Half of this amount of work in education, including practice teaching, may be accepted for a one-year certificate renewable upon evidence of six semester hours further credit in education.

Michigan.—At least a three years' specialization course with approximately sixty semester hours of credit in the field of physical education theory, materials, history, organization and practice.

New Jersey.—Satisfactory completion of at least a three year physical education teacher training course in an approved school or college maintaining such a course and which includes:

Educational Psychology	2 semester hours
Principles of Education	2 semester hours
Methods of Teaching Physical Education with observation.	2 semester hours

New York.—Permanent certificate, high school graduation plus one hundred and eight credit hours of which eighteen must be professional subjects, nine general, thirty-six technical physical education and forty-five elective (same as for special teachers of other subjects). Provisional (non-renewable) certificate for two-thirds credit hours in each group of courses.

Ohio.—At least a major of forty semester hours in an institution approved by the State Department of Education.

2. *Majors in Two or More Subjects.* In the light of modern training in physical education (page 418), the following majors and minors would be quite possible:

- Physical Education and Science.
- Physical Education and Music.
- Physical Education and Domestic Arts and Science.
- Physical Education and Social Science.
- Physical Education and Work as a Vice-principal.
- Physical Education and Work as a Dean of Girls.

* *What State Departments of Education Are Doing in Physical and Health Education*, Study and Report, No. 4, National Recreation Association, 315 Fourth Avenue, New York, pp. 14-15.

B. Special Certification.⁵ Most states have set up special certification in physical education. The subject matter requirements usually far exceed the general certification requirements. The reason for this is obvious as teachers having special certification are allowed to instruct in one subject only. In the past special certification has not carried a great amount of background subject matter requirements. This is however being remedied as is indicated in the requirements of New York and California.

1. *Special Teachers of Physical Education.*

a. New York Requirements:

A four-year approved high school course (full requirements listed in paragraph 3 a):

Three years (96 semester hours) of professional training distributed as follows:⁶

	<i>Semester hours</i>
Professional education subjects	18
including	
History and principles of education, 6 semester hours	
General and educational psychology, 6 semester hours	
Methods, observation and practice teaching, 6 semester hours	
English composition and literature	6
Modern European history	3
Technical subjects of the special field	24
Elective subjects (general or technical)	45

The Suggested Minimum Courses for Teachers of Physical Education:

General Chemistry, if Physics was taken in high school

or

General Physics, if Chemistry was taken in high school

<i>Anatomy, Physiology and Hygiene</i>		16
<i>Human Anatomy</i>	3	4
	or	
Applied (<i>kinesiology</i>)	3	2
<i>Human Physiology</i> (with prerequisite of 3 hours in Biology)	3	4
	or	
Applied (<i>Physiology of Exercise</i>)	3	2
<i>Hygiene: Personal and school</i>		4

⁵ For suggested requirements see page 418.

⁶ On and after September 1, 1933, candidates for certification must have four years of professional training.

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<i>Physical Examinations, Diagnosis and Anthropometric Tests and Measurements</i>	5
<i>Corrective Exercises</i>	3
<i>First Aid</i>	1
<i>Play: Nature, Functions, graded curriculum, methods.</i>	3
<i>Practice of activities</i>	14 to 22
<i>Gymnastics (practice)</i>	6 to 10
<i>Athletics, Sports, Dancing (practice)</i>	8 to 12
<i>Organization and Administration of Physical Education in Public Schools</i>	3
<i>Methods of Observation and Practice Teaching</i>	2

b. California Requirements:

(1) Special Credential in Health Education.⁷ An applicant for a special credential in health education must submit from a teacher training institution, approved by the California State Board of Education for training health education teachers:

A certificate that he is physically and mentally fit to teach.

A recommendation by the school of education of the institution that he shows promise of success as a health coördinator, and verification of:

Valid secondary certification in California.

At least three years of teaching experience in the schools of California, together with the names of at least three persons who can speak with authority on the success of his teaching.

A minimum of fifteen semester hours of professional work in education.

A minimum of twenty semester hours credit in the following:

- Biology
- Anatomy
- Physiology
- Psychology
- Sociology
- Chemistry

A minimum of twenty-four semester hours chosen from at least five of the following (health problems in secondary school required):

- General bacteriology
- Public health
- Hygiene
- Growth and development of the child
- Clinical psychology
- Statistics
- Health problems in the secondary school

⁷ *State Teachers' Credentials and County Certificates in California*, Bulletin No. H-2, State Printing Office, Sacramento, California, September, 1928, p. 16.

Authorization for Service:

This credential authorizes the holder to act as health coördinator in the public schools of California.

Term:

This credential will be issued for a period of two years and may be renewed thereafter for periods of five years on verification of successful experience as a health coördinator in the public schools of California.

2. *Special Certification in Health.* a. New York Requirements. It is proposed that applicants for license of supervisor of health teaching in New York meet requirements A, B, C, D, listed below:

A—Graduation from an approved high school and

B—Graduation from an approved normal school or approved college and

C—Three years' successful teaching experience and

D—Fifty-four points in special subjects of collegiate grade, part or all of which may have been taken in the course under B.

<i>Special Subjects</i>		<i>Points</i>						
		<i>Credit</i>						
UNDERLYING SCIENCES		22						
BIOLOGIC SCIENCES	<table><tr><td>Biology</td><td>4</td></tr><tr><td>Physiology</td><td>4</td></tr><tr><td>Bacteriology</td><td>2</td></tr></table>	Biology	4	Physiology	4	Bacteriology	2	10
Biology	4							
Physiology	4							
Bacteriology	2							
CHEMISTRY	<table><tr><td>Inorganic Chemistry</td><td>4</td></tr><tr><td>Organic Chemistry</td><td>4</td></tr><tr><td>Biochemistry</td><td>4</td></tr></table>	Inorganic Chemistry	4	Organic Chemistry	4	Biochemistry	4	12
Inorganic Chemistry	4							
Organic Chemistry	4							
Biochemistry	4							
APPLIED SCIENCES		14						
Personal hygiene	2	14						
Community hygiene	4							
Nutrition	4							
Principles of cookery and Commercial preparation of food	4							
EDUCATION		18						
		54						
Recommended in Addition								
STANDARDS OF HEALTH AND GROWTH OF CHILDREN		2						
MENTAL HYGIENE		2						
ADMINISTRATION OF HEALTH EDUCATION PROGRAM		2						

It is also recommended that four of the eighteen points in Education represent a course in methods of Health Teaching.

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b. *California Requirements.* Special Credential in Physical Education.⁸ An applicant for a special credential in physical education must submit from a teacher training institution, approved by the California State Board of Education for training physical education teachers:

A certificate that he is physically and mentally fit to teach.

A recommendation by the school of education of the institution that he shows promise of success as a teacher with verification of:

The completion of a four-year college course with a bachelor's degree, or the equivalent, preceded by graduation from a four-year high school.

A minimum of sixteen semester hours of work in the fields of English, Science, Social Science, and Physical Education.

A minimum of fifteen semester hours of professional work in education, including:

A course dealing with the aims, scope, and desirable outcomes of the elementary and the secondary schools.

Principles of teaching, with directed teaching in physical education, at least six semester hours.

Other courses in education.

A minimum of fifteen semester hours selected from at least four of the following:

- Biology
- Anatomy
- Physiology
- Hygiene
- Psychology
- Sociology
- Chemistry

A minimum of twenty-four semester hours, chosen from at least seven of the following:

- Principles of physical education
- Technique of teaching activities
- Administration of physical education
- Kinesiology (applied anatomy)
- Applied physiology (physiology of exercise)
- Activities of physical education
- Community recreation
- Individual program adaptations (corrective physical education)
- Physical education tests and measurements
- Health education
- Growth and development of the individual

⁸ *Ibid.*, pp. 28-29.

Authorization for Service:

This credential authorizes the holder to teach physical education in the public schools of California.

Term:

This credential will be issued for a period of two years and may be renewed thereafter for periods of five years upon verification of five months of successful teaching experience in the public schools of California.

3. *Elementary Teachers.*⁹ In the past the class room teacher was neither trained nor certified from the standpoint of physical education.

The state physical education laws now have a tendency to require minimum standards as is evidenced in the following states:¹⁰

California.—All elementary teachers are required to take a minimum of two credit hours in health education and four credit hours in physical education. Secondary teachers with general credentials, no requirement.

Delaware.—Two years college work and evidence of successful experience and professional training.

Michigan.—Minimum of five terms (sixty weeks), three to five times per week without credit.

Minnesota.—All elementary teachers required to have four credit hours in physical education and four credit hours in health education. These are now constants in curriculums of all Minnesota State Teachers' Colleges.

New York.—Elementary grade schools, six hours hygiene, six hours physical education and two hours physical education elective.

Ohio.—Five semester hours of training, three in physical education and two in health education.

Virginia.—Two semester credits in physical education and one semester credit in teacher training physical education total three semester credits and one semester credit in school and community health.

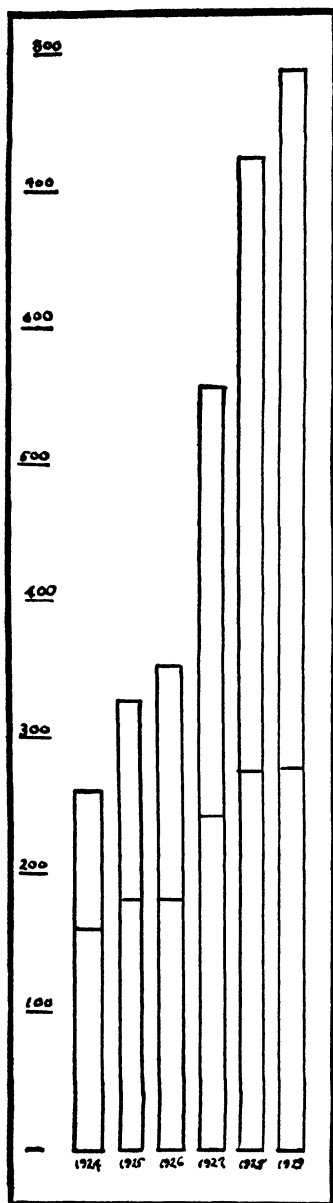
4. *Administrators, Supervisors and Directors.* Steps have been made in regard to special training and certification for administrators, supervisors and directors:¹¹

California.—Supervision and administration credentials based on special credentials and issued on completion of additional ten and fifteen credit hours respectively.

⁹ For recommendation on training see Chapter XVII.

¹⁰ *What State Departments of Education Are Doing in Physical and Health Education*, op. cit., p. 12.

¹¹ *Ibid.*, p. 15.



Growth of Physical Education in Minnesota, in Terms of Part and Full Time Directors: lower portion—full time; upper portion part time

Delaware.—College graduate, experience and professional training satisfactory to State Superintendent who issues certificates.

Maryland.—Completion of a standard four year high school course or the equivalent. In addition to above four years of college or the equivalent, approximately one half in the special branch in which certificate is issued, including not less than three hundred recitation hours in the theory of education and the art of teaching and supervising physical education. Four years of successful teaching experience including two in physical education.

III. LOCAL REQUIREMENTS FOR LEADERSHIP

Many cities have local requirements over and above those established by the states. These may be in the form of credentials as to training and experience, or examination. Both are usually supplemented by a personal interview.

A. Credentials. Where credentials are required cities usually have a list of recognized training institutions. Certification from these, plus letters of recommendation and transcripts of experience, constitute a basis for selection.

B. Examinations. Other cities, notably New York, Buffalo, Philadelphia and Los Angeles require a practical and theoretical examination in addition to a personal interview.

IV. ORGANIZATION OF LEADERSHIP

In cities and counties the head of the department is selected more and more on a year-round basis. A month's vacation is allowed in accordance with local rules. This makes possible the year-round leadership on the instructional side as well as the participation or laboratory side of physical education, as suggested on pages 74 and 76.

A. Supervisory Load.¹² Two types of supervisory load must be considered: first, supervision which has to do with the special teacher and, second, supervision which has to do with the class room teacher.

1. Supervision of Special Teachers. A supervisor can organize a large number of special teachers if they are well trained. This type of supervision would depend upon research and experimentation in various schools before suggesting the procedure on a large scale. If such research can be organized under committees, as is outlined in chapter XXI, one supervisor for the men and one for the women should be enough to handle this work in a city of

¹² Supervision will be discussed in Chapter XVI.

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two hundred and fifty thousand to four hundred thousand.

2. *Supervision of Room Teachers.* In the organization of supervision for the class room teacher a variety of specialists is more important than mere numbers. As is indicated on page 337, one supervisor for the kindergarten-primary should be able to organize forty to fifty buildings, with a total of five hundred teachers and twenty thousand children, by the use of the demonstration method and the committee plan of study. By confining the work of one supervisor to the kindergarten-primary grades where there would be special supervision in rhythmic activities, simple dramatic stunts and tag games, an efficient organization can be established. A similar situation could be established for the upper elementary grades which would involve thirty to forty buildings, four hundred to four hundred and fifty teachers and approximately seventeen thousand children. Women supervisors as a rule are more successful in this capacity than men.

B. Junior and Senior High and Departmental Schools.

1. *One of the most important elements in leadership is close contact with the principal.* A plan has been found very successful whereby a committee of principals representing various types of schools sits in advisory capacity. This relationship helps to integrate the whole supervisory procedure and relieves the special supervisor of many details.

2. *It is generally accepted that above the fourth grade men should be in charge of the boys and women in charge of the girls.* This procedure has received general acceptance over the country. All the instruction and participation phases of the physical education program are recognized as integral parts of the educational procedure and hence the instructors are regular certified members of the school staff. A recent survey indicates that the handling of the laboratory periods is largely a voluntary contribution on the part of the director of physical education. This overtime averages from ten to fifteen hours per week.¹³ A large amount of overtime put in by the physical education staff is also indicated in the figures on page 342.

3. *A survey of the secondary schools in the Southern Association¹⁴ indicates that of the seven hundred and thirty-four coaches employed all but fifty-three are regular teachers.* This makes the

¹³ Marie M. Ready, *op. cit.*, p. 50.

¹⁴ *Secondary Schools of the Southern Association*, Bulletin No. 16, Department of the Interior, Bureau of Education, Washington, D. C., 1928.

director of after-school athletics an integral part of the school. Seventy-nine and four-tenths per cent of the coaches teach three or more periods per day. Thirty-five and seven-tenths per cent of the coaches teach science; twenty-nine and one-tenth per cent, mathematics; nineteen and one-tenth per cent, social science; four and one-tenth per cent, foreign languages; and three and seven-tenths per cent, English. The most prevalent combination is physical education and science, the foundation for which is suggested on page 422. A possible staggering of the hours of the director of physical education in order to reduce unjustifiable demands of his time is suggested below.

4. *The teacher of physical education in the evening schools usually receives extra compensation.* The program suggested on page 340 would make possible a service running through the afternoon and evening without such extra compensation.

TABLE XLI

PHYSICAL EDUCATION TEACHERS' TIME ALLOTMENT AND PROGRAM

CARD TERMINOLOGY

A	Physical Education		I—low 9	} 25 to 35 periods per week.
	"	"	II—high 9	
	"	"	III—low 10	
	"	"	IV—high 10	
	"	"	V-VI—11	
	"	"	VII-VIII—12	
	"	"	R.—Restricted (Physician's excuse) O.—Orthopædic	
B	"	"	Vacant—(Rest)	* 5 periods per week
C	"	"	A.S.O.—After School Organization	} * 5 possible periods per week. May be duplication of pupils, i.e., pupils already enrolled in Group A.
	"	"	H.P.—Health Projects, i.e., Nutrition Program	
	"	"	N.O.—Noon Organization	
D	"	"	Ex.—Physical Examinations	} * 5 periods—possible assignment by principal.
	"	"	C.P.—Consultation Period	
	Other Assignment by Principal—(Specify Type)			

40 total periods per week.

5. *Teaching Load in the High School.* Two questions arise relative to the teaching load for specialized teachers in the junior and senior high schools: one in regard to the number of periods taught per day, including afternoon and evening laboratory

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periods, and the other, to the total pupil load of the teacher with special reference to the size of the classes.

a. Number of Periods Taught Per Day. The following suggestions would be upon the basis of an eight-period day:^{15, 16} With reference to Table 34 in the application of the time allotment schedule, in groups designated I to VIII inclusive there may be a minimum enrollment of twenty pupils. With proper organization as high as sixty may be taught in one class. In the restricted and orthopædic activities and in the health projects a minimum enrollment of eleven pupils per class is allowed. In arranging teacher-load combinations the following three groupings are possible:¹⁷

<i>I</i>	<i>II</i>	<i>III</i>	
<i>No. Periods</i>	<i>No. Periods</i>	<i>No. Periods</i>	
25	30	35	Class teaching—chosen from Group A.
5	5	5	Rest—B.
5	—	—	Possible duplication of pupils—chosen from Group C.
5	5	—	Principal's assignment—chosen from Groups A, B, C, or D.
—	—	—	
40	40	40	Total.

With reference to the above table it should be noted that the consultation period as well as the after school organization period is considered instructional. The teacher who gives time for the organization of activities during the noon period also counts this as instructional. Another point to be noted is that one period per day is allowed all teachers, as a rest period.

b. Total Pupil Load and Size of Classes in the High School. Inasmuch as physical education is required of all students in most of our four-year schools it becomes a very expensive procedure from the standpoint of the number of teachers. This number

¹⁵ "Physical Education for Senior High Schools," *Course of Study Series*, No. 72, Oakland Public Schools, Oakland, California, 1925, pp. 85-86.

¹⁶ Marie M. Ready, *op. cit.*, p. 52.

¹⁷ This estimate is confirmed by a study of Secondary Schools of the Southern Association (Bulletin No. 16, Department of the Interior, Bureau of Education, Washington, D. C., 1928, p. 77.), where eighty per cent of the coaches teach four or five other periods.

ranges from eight to twelve per cent of the entire teaching staff (page 48).¹⁸

The salary cost per pupil, however, is less in physical education than in any other subject. In an intensive survey of thirty California schools of less than one hundred pupils the physical education cost was the lowest—twenty dollars;¹⁹ the highest was eighty-seven dollars for mechanical arts. In cities over a thousand the per capita salary cost for physical education was sixteen dollars as compared with mechanical arts at forty-six dollars.¹⁹

The cost of supplies will be considered on page 264. In a survey of one hundred and fifty cities in California it was found that the mean teacher-load was slightly less than two hundred and fifty students.

A survey of schools on the Pacific coast indicated the following number of pupils per teacher:

Boys' Department	Median—205	Average—193
Girls' Department	Median—200	Average—210

These figures include all of the various types of group and individual instructional activities; inter-school, intra-mural, health conferences and often school recreation. It was found in some instances that classes in individual activities had as low as fifteen pupils.

In large city high schools this teacher-load will be considerably higher. There is evidence that with the utilization of squad leaders (page 346) it will be possible to materially increase the pupil-load of teachers without affecting the quality of teaching.

The standard adopted by the National Education Association recommends a teacher-load of two hundred and fifty pupils divided upon the basis of twenty-five teaching classes per instructor per week. Recommendations also put forty-eight as the number of pupils per class in schools under twelve hundred and sixty, in schools under fifteen hundred.²⁰

c. Other assignments. Teacher-load must be considered not only in the light of the number of instructional periods but in connection with the amount of other activities assigned to the director

¹⁸ *Report of Committee of Fifteen, High School Teachers' Association, California, 1923*, pp. 102-103-104.

¹⁹ *Ibid.*, pp. 105-106-107-108.

²⁰ *The Development of the High-School Curriculum*, National Education Association, Sixth Yearbook, Department of Superintendence, Washington, D. C., 1928, p. 460.

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of physical education. The following table indicates this assignment in one survey: ²¹

TABLE XLII
ANALYSIS OF INSTRUCTIONAL-LOAD

<i>Subjects</i>	<i>With Class Groups %</i>	<i>Other Assigned Duties %</i>	<i>On Account of Subject %</i>	<i>Extra Curricular %</i>	<i>Professional on Account of the School %</i>
English	45.5	11.4	30.9	6.7	5.4
Mathematics	53.5	11.8	23.0	7.2	4.5
Science	52.1	8.9	28.0	6.7	4.1
Social Studies	49.0	12.2	26.7	7.8	4.4
Language	51.9	8.5	27.3	7.1	5.2
Drawing	64.8	7.7	13.7	8.5	5.3
Manual Training ...	67.2	7.2	16.6	4.6	3.4
Agriculture	49.0	10.5	27.1	8.9	4.5
Household Econ.	57.6	10.2	20.8	6.8	4.5
Music	58.4	12.7	15.2	9.7	4.0
Commercial	62.5	7.6	20.8	4.6	4.5
Physical Education..	51.2	14.5	13.2	15.5	5.5
Miscellaneous	54.9	9.8	24.8	7.1	3.3
<i>Summary</i>					
Women	52.5	9.5	26.2	7.6	4.2
Men	56.2	11.5	20.0	7.5	4.8
Both Women and Men	54.0	10.2	24.0	7.5	4.3

It should be noted with reference to page 342 that while the director of physical education is carrying a full teacher-load in the class room he has the largest percentage of assignments to other duties and by far the largest to extra curricular activities.

A serious question has arisen relative to compensation for over-time physical education work, especially with regard to the conduct of athletic activities. It has been the custom to pay for over-time work. This has been a convenient loophole for schools to pay unduly large salaries to men who are primarily coaches. This demand for over-time work on the part of the physical education staff has caused the spread of the demand for over-time pay and has caused dissatisfaction among the other teachers.

Compensation should be made but it should be in connection with the time allotment rather than salary adjustment. A schedule in which part of the staff serves from nine to three o'clock, others from eleven to five o'clock and, in very large schools, from two to ten o'clock at night would be a just way of meeting the situation.

²¹ *Report of Committee of Fifteen, op. cit., p. 61.*

Although the physical education staff, according to a recent survey, is interested in the additional salary, school administrative officers are almost unanimous in opposing such compensation.

C. Elementary School.²² Under adequate supervision of the special supervisor and the principal in the non-departmental schools, the room teacher can best direct the activities of the physical education period. This is especially true as the tendency to tie up the activities of physical education with that of the health program increases. Testimony of the efficiency of this plan comes from the states of Virginia, Michigan, California, New Jersey and others. The plan is more effective where it involves teachers graduated from normal schools in the last decade when physical education has been a recognized phase of training (page 418).

D. Leadership in the Platoon Schools. The work-study-play plan requires specialized leadership wherever it is put in operation. While many feel that it should not be operated below the third grade it has been successful even here. In a survey of fifteen cities the teacher-load in the elementary grades was slightly under four hundred. This large number increases the necessity of the director of physical education being an organizer. With proper organization the utilization of squad leaders may be worked out to a great advantage. The use of older boys and girls and the leadership of smaller children in connection with civic and social science projects also has advantages.

The growth in the number of full-time physical education leaders utilized in the city of Detroit (page 345) is due largely to the introduction of the platoon system.

E. Playgrounds. Numerous plans have been tried for the supervision of the elementary school playground after 3:15 daily on Saturdays and in vacation periods. Under the present organization of the school the grade teacher because of physical limitations is probably not the one to handle these activities. The strain of a long teaching day is likely to take from her the spontaneity needed for the direction of a playground. It is equally unsatisfactory to employ a playground director who has no connection with the school. This would make a division between play and education. It provides no tie-up between the school and the playground programs. The plan of having the elementary teacher stay one hour after school assisted by a playground instructor has proved quite

²² H. G. Danford, "The Elementary Teacher as a Physical Educator," *Journal of Health and Education*, Vol. 11, No. 1, American Physical Education, Ann Arbor, Michigan, January, 1931, p. 3.

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satisfactory. This overlapping provides a point of articulation whereby the whole program is united in a functioning unit. These playground directors can be recruited from colleges and normal schools in the vicinity or they may be teachers who are awaiting assignments. California requires two years of training for certification in such a field. Paying the elementary teacher a small sum for over-time and having the work directed by another individual has worked out very well.

F. Community Centers. Where the school community center is organized by the board of education under trained leadership, as in Milwaukee, the teacher-load which includes the activities in evening centers has proved satisfactory. Teachers may be employed full-time for such a joint program.

V. TECHNICAL QUALIFICATIONS OF LEADERS

Physical education represents a teaching program; therefore a thorough mastery of the technique of teaching activities from the standpoint of achieving ultimate objectives is of great importance. Some specific requirements are listed:

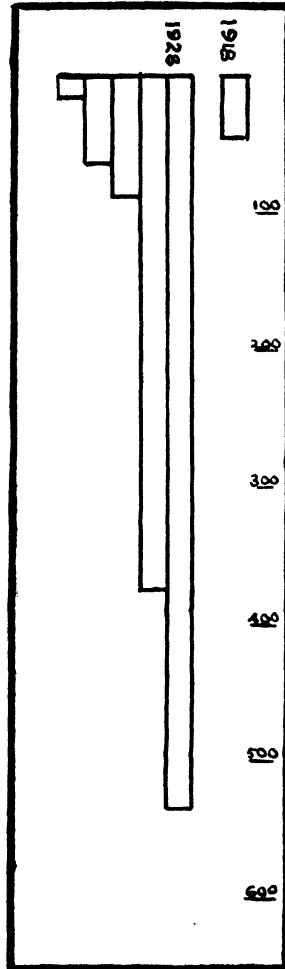
A. Personal Skill Important. One of the first essentials of leadership is a thorough mastery of personal skills in the many activities involved in the program. These should include the range of activities of the playground, athletic field, gymnasium, swimming pool, camp and other activity centers. In the large high schools there will undoubtedly be a tendency toward specialization in swimming, dancing, sports and individual activities.²⁸

B. Knowledge of Principles and Methods. In addition to acquiring skills the individual must be familiar with principles and methods involved in teaching. Activities must be presented in such a way that they challenge the child. This involves a thorough knowledge of the child's acquired and hereditary interests and the principles underlying the psychology of learning. Background subjects in principles, methods, sociology and psychology are of benefit to a teacher but the clinical experience of watching the reactions of children to activities forms the real basis for successful teaching.

C. Organization of Activities. Each instructor must be able to evaluate activities and organize the same into a teaching schedule.

²⁸ For training and specialization see Chapter XVII.

D. Care and Protection. The physical educator also becomes responsible not only from the standpoint of accidents but from that of health protection.



Growth in Number of Directors of Physical Education in Detroit

E. Classification of Children. The director of physical education must be familiar with the underlying principles of classification of individuals in order that scientific procedure may be established.

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F. **Realization of Objectives.** Based upon a thorough knowledge of the technique of activities and the methods involved in teaching, backed by a knowledge of the principles of classification of individuals and activities, the physical education instructor must be familiar with the objectives or that which is to be accomplished by means of the program.

VI. PLACE OF PUPIL LEADERSHIP

We have already indicated on page 16 the possibility of the use of pupil leadership. Pritchard,²⁴ in a recent survey showed the growth of lay-leadership together with certain estimated criteria for the selection of the same. This lay-leadership has been used extensively and successfully by many semi-public organizations. Undoubtedly it has great possibilities for the institutional school. Collier²⁵ has indicated that lay-leadership, or what he calls "the individual engaging in public works," is at the very root of the solution of the problem of leisure time. The extent to which this type of leadership can influence the social order in a country is shown in the operation of the folk high schools and peoples' colleges of Northern Europe. The foundation for adult lay-leadership can well be set up in the organization of pupil-leadership in the school. The organization of students into squads and the selection of one of the group as a leader forms an excellent laboratory for such training. It is possible to rotate the squad leadership in such a way that every individual has an opportunity both to lead and to follow. These squads are usually made up of six individuals plus the leader. Ten or fifteen squads can be readily handled by one leader. If the number of squads drops below five some difficulties arise in the operation.

Under such a plan of squad leadership as is outlined above special attention must be given to leadership training. This training can be given in two ways. The director may conduct one of the rotating groups in which time he will devote himself to the training of the squad leaders or he may organize a special class for the leaders. Under the latter plan it would be possible for the director to hold special training class for the activities within the program. Inasmuch as such leadership would be required for a limited

²⁴ Earle A. Pritchard, *Modern Tendencies in Certain Play and Physical Education Organizations*, Thesis submitted in partial fulfillment of the requirements for the degree of Master of Arts in the School of Education, New York University, 1930.

²⁵ John Collier, "Fullness of Life Through Leisure," *Interpretations of Physical Education*, Vol. I, A. S. Barnes & Co., New York, 1931, p. 187.

amount of time only this class might be held at the close of the official school day. Because of the variety of activities the pupil leaders would not be required to come more than once every two weeks.

Group leadership is well marked out in the Junior High School Number 61, New York City. Principal Maguire says:²⁶

The entire group procedure will be seen as democracy at work. Leaderships arise out of a realized community need, but these leaderships could not work out unless the idea of followership was implanted and habituated. There is no finer result in character education than the development of this attitude of coöperation, the attitude of "you follow me to-day and I'll follow you to-morrow" that marks the Group-Study routines. Real democracy depends upon this acceptance of leadership, and this acceptance is followership in action. Children have no difficulty in comprehending this point; it seems to be natural enough. When the choice of leaders is automatic (based on superiority in attainment) or elective (by vote of the pupils themselves) followership is an obvious concomitant, and the combination of leadership and followership is the setting for a project procedure which gives scope for loyalties—the "gang-spirit" in the schoolroom, which is the best place for this instinct. Let the teacher carry this idea of leadership to its fullest by searching out leaderships for everybody because every individual has some power and the skilled professional teacher will make the discovery.

Modern teaching is taking the lines of directing experiences and of working out adjustments in human relationships.

The reactions of children to these procedures are bound to be intensely social, and the atmosphere, the attitudes and the organizations must be social. This socialization, however, connotes a democracy that was unknown in the old school; and this new school democracy demands and gives scope to leadership.

Leadership, followership and citizenship are inseparable factors in the modern school routines. And these routines are coming more and more to be viewed as small-group organizations. These small community groups within a class are the bases of the Group-Study-Plan technics; through them most of the objectives of modern teaching become functional.

The self-activities (participation) of the groups are controlled, guided, and managed democratically through the group-leaders who head each group. These leaders are automatically selected on the basis of personality and achievement; their superiority for the time is recognized and followership results. The leader is responsible for the correct performance of his group-members; he must himself set a standard of performance, and he must see that the group secretary keeps a correct record sheet showing individual achievements of his followers. Leaders are specially coached by the teacher.

²⁶ Edward R. Maguire, *The Group Study Plan*, Charles Scribner's Sons, New York, 1928. (This book sets forth the group study plan in detail.)

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in a leaders' group preceding the leadership activity. This procedure insures good leadership, correct form, feasible standards—in short, it integrates the activity period. The development of pupil leadership is an economy, because the teacher is set free to watch performances, while, at the same time, individual activity is stimulated because each group has its own stunt, task, problem or project and the ratio of participations is based upon the small number in each group instead of upon the gross register of the entire class.

The effect of leadership upon the followers is thus obviously a gain. What about the effect upon the leader himself? The history of the Group-Study-Plan is replete with examples of personality development in leaders. It is obvious that the leader accepts responsibility to no slight extent: he endeavors to set a form or standard, to stimulate interest, to drill or practice his group, to encourage laggards, to oversee his secretary's sheet, and to improve individual performances. These responsibilities he accepts; and feels that his success is measurable. He is a sort of senior partner with the teacher, and the glow of success is his due.

The leader's own achievement invariably rises to the need. His attainment is the basis of his leadership; his pride stimulates his ambition to retain his leadership and to acquit himself of his stewardship.

Rotation in leadership cleverly engineered by the teacher means results, because every eligible individual strives to become worthy and the entire tone rises.

Finally: at the last class period of the week the teacher will do well to provide time for a cessation of activities while all pupils listen to reports by the special leaders of the week accounting for their stewardship. And as each leader concludes his report, let the entire class render a verdict of excellent, very good, good, fair, etc. Thus the principle of responsibility is headed up and evaluations become conscious.

A. The range of possibilities of such leadership is indicated by Ruth Savage in the following:²⁷

1. In a free play period before class begins, such as Montclair has, where children organize into groups under a leader for participation in activity when they arrive on the floor. Leaders are decided upon by their arrival on the floor. The first few to arrive being the leaders. The number of leaders is decided on by the number of activities a class is permitted to engage in during free play period.

2. In squad organization.

3. In games, as team captains.

4. As class captain.

5. As assistant teachers.

6. As officers in gymnasium clubs, athletic associations, leaders' clubs, hiking clubs.

²⁷ Ruth Savage, "Adult and Student Leadership in Physical Education," *The Research Quarterly* of the American Physical Education Association, Vol. I, No. 1, Ann Arbor, Michigan, March, 1930, pp. 80-81.

7. As assistants in office.
8. As officials in games, managers.
9. Chairmen of committees for programs such as dances, field days, play days, pageants.
10. As neighborhood play promoters.
11. Taking charge of groups in exhibitions.
12. Organizing lunch period activities.
13. Locker room patrols to assist with baskets.
14. Girls sent out to coach and referee elementary school and church league teams.

B. Granted opportunity for the use of student leaders, how may they be selected:

1. By appointment by teacher or supervisor of physical education on the basis of (a) natural ability; (b) interest; (c) leadership potentialities; (d) need for development.
2. By election of the class.
3. By passing certain tests and so being eligible to serve as a leader.
4. By signifying the desire to be one.
5. By taking turns.

C. With regard to the training of such leadership Miss Savage suggests the following:²⁸

1. No extra training need be required but the natural leadership of the group enlisted and use made of spontaneous leadership.
2. Squad leaders meet once a week, two weeks, or month depending on the organization; and after school or during a club period for extra training.
3. Where there are two gymnasiums and assistants a double set of leaders may be chosen. The A group trains to lead the squad the coming week while the B group is doing the actual leading and vice versa.
4. A squad leader's training squad working at one end of the gymnasium or in a different room while the rest of the class engages in a group or mass activity under the leadership of one person might suit a different organization of physical education activities the better.
5. A "Leaders' Club" found in so many schools is another method of leadership training. This club differs from the ordinary squad leader or class leader type of organization described in the fact that these girls are keenly interested in physical education, and so come for extra work and training and must pass certain tests and standards set for them, physically and mentally. So they may serve as assistant instructors, and the squad organization usually rounds up under them. This program is working very satisfactorily at McKinley High, Canton, Ohio, and West Commerce High, Cleveland, Ohio; Roosevelt Junior High School, Cleveland Heights, Ohio.

²⁸ *Ibid.*, p. 81.

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In this manner it is possible to organize a great range of activities such as stunts, elements of team games, combative activities, tag and it games, and even some phases of the rhythmic and dramatic activities.

D. The degree of success of such leadership may be judged in terms of leadership and followership, as is described by Miss Savage in the following: ²⁹

JUDGING LEADERSHIP DEVELOPMENT

1. Is the leader democratic? Does he mingle freely with and help all? Do all under him keep happy and busy? Does he urge and promote team work? Is he a good companion, recognizing the good qualities in others and exhibiting them in himself? Is he tactful and kind?

2. Does he accept responsibility and inspire confidence in his group?

3. Does he keep his mind and energy intent on his group and task and not on himself, and see the task through?

4. Does he consider the future outcome and then apply himself to make the most of the opportunity at hand? Does he have pride in his and his companions' accomplishments and in his school?

5. Does he have initiative, and energy, and is he happy and not a "tell-tale" and a "grouch"?

6. Is he honest? Does he admit his mistakes, accept blame, remain impartial, and abhor dishonesty?

7. Is he courteous, loyal, obedient to authority and regulations, and does he have faith in his school, and do people have faith in him?

8. Is he capable of carrying on activities without supervision and of knowing the value of property he is using, or does he constantly have to be supervised?

JUDGING THE DEVELOPMENT OF FOLLOWERSHIP

1. Does he recognize and respect responsible leadership and value the leader's opinion?

2. Does he coöperate cheerfully with the group on any task the leader sets for him?

3. Does he respect the rights of others, or is he selfish in his group? Does he respect past experience and profit by it?

4. Does he sacrifice self for the sake of the task?

5. Does he keep his temper, play fair, and not "squeal"?

There is great opportunity in this plan of pupil leadership to train individuals not only to be leaders but also to be followers. It is a very important element in citizenship training. Squad leader-

²⁹ *Ibid.*, pp. 82-83.

ship and the training of the same represents the peak of the training in physical education. The whole conduct of the physical education program thus becomes a citizenship laboratory, corresponding in elements to the conditions in which an individual will find himself in the community after he leaves the school. If conditions are set up in the school similar to those which the children will find in the community there will be unlimited possibilities for the training received in school to carry over into life situations.

Squad leaders will make mistakes both in conducting activities and in the organization and administration of games, schedules, etc. These mistakes offer fine opportunities for helpful guidance. They give the leader an opportunity to point out more effective procedures. Since education is a doing process the child will not benefit when the leader does all the work. The other extreme of letting the student lead without supervision is equally poor. Allowing the leader opportunities for responsibility under guidance is sound educational procedure. It will have a direct bearing upon the proper use of leisure time.

VII. HEALTH COÖRDINATION

Leadership, in so far as it involves the health coördinating program will be dealt with more fully in Chapter XIX. Special training is necessary for such leadership.

VIII. ORGANIZATION

Leaders who are in the positions of heads of departments, supervisors, directors or administrators should consider one of their main functions that of organization. From the administrative plan the question is, how many people can you organize?—not, how much can you do yourself? The plan of having the special supervisors rotate in the class rooms for the purpose of teaching has not been successful. People in supervisory and administrative capacities should see that the school and the community function as one group from the standpoint of health, leisure time, vocational training, personality building, etc. Leadership thus becomes a problem of organization.

IX. LEADERSHIP MUST BE WON

On all levels genuine leadership must be won. Leadership is too elusive a thing to be authoritatively bestowed. Authority and

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leadership are not synonymous nor are position and leadership. Leadership must carry with it a want to be led. We seldom imitate or follow one whom we do not admire. The position of authority becomes merely an opportunity. Figuratively real leadership may be pictured as an individual who carries a compass in one hand and a magnet in his hip pocket.

X. AWARDS OF LEADERSHIP

If civilization is to carry on, a great mass of men and women must learn the joys which come from sharing something they have with others. A leader must be a sharer. One cannot share what one does not have—sharing involves having. The joy which comes from seeing the light in the eye of one with whom you, as a leader, have shared far outreaches the shifting joy of mere getting. The *getting* points to the lower level of development portrayed on page 6. It harks back to old survival levels where it was necessary to make a choice of self against the group. The joy of sharing points to higher levels where one vies with another to serve the group.

PROBLEMS

1. The superintendent of schools has a large number of applications for the vacancy in the department of physical education and health. He is perplexed as to the best policy for selecting a man. On one hand he has a number of college graduates who have excellent personalities and good records in college athletics; on the other, he has applicants from the state teacher's college who have specialized in physical education and health. It is the personality in the first group that is superior, while in the second it is the training. How would you advise him?

2. The High School Principals' Association has protested to the superintendent of schools that the policy of paying physical directors overtime for coaching athletics has aroused deep dissatisfaction throughout the system. The music and drawing teachers are asking the same consideration. The physical directors are the youngest teachers in the school, have had less years of experience and less training than most of the others. Would you advise that all teachers be paid overtime at the same rate as the physical directors, or would you advise a change of plan relative to your staff? If you advise any changes, what do you recommend? •

3. The superintendent of schools has requested you, as the director of physical education and health of a city of 700,000, to make a complete study of the curriculum from the kindergarten through the junior college. Outline the machinery which you would set up for this study.

PRINCIPLES

1. Leadership objectives are by-products of activities, while the children's interests are centered in the activity itself.
2. Certification standards of the states should guarantee special training in physical education for teachers.
3. Teachers should have training in the conduct of physical education both from the instructional and the laboratory standpoint.
4. Special training should be required for administrators, supervisors and directors.
5. Supervisors should be thought of in terms of organizers rather than special teachers.
6. The laboratory and conference periods should be thought of as integral parts of the teacher-load.
7. Leadership for the school age child in the laboratory periods, including the after school as well as the vacation play periods, should be considered as a carry-over of physical education and should be conducted by trained physical education leaders.
8. Squad leaders should be utilized not only to assist in handling large numbers of pupils but to provide an opportunity for leadership training.
9. Leadership possibilities in physical education activities are great because of the *want to enter into activities*, and through leadership it is possible to influence behavior.

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CHAPTER XII

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PART IV. ROUTINE ADMINISTRATION

This phase of administration has to do with the day to day procedures essential in making an organization function. It is a phase which confronts every administrator, supervisor and teacher.

An individual coming into a teaching situation must take the organization as he finds it. To a certain extent even his objectives have been selected for him. While he may gradually reorganize the department his major task is to make the organization, as he finds it, function. Carrying out the analogy of the railroad system, routine administration has to do with keeping the wheels moving. It is concerned with advertising, making and printing schedules, selling tickets, hiring and discharging staff, auditing and replacing equipment and transporting passengers and freight.

CHAPTER XIII

THE MANAGEMENT OF THE OFFICE

I. THE CENTRAL DEPARTMENT OFFICE

The organization of the office should exist to make more effective the teaching procedure. It is a tool to be used—not an end in itself. It should have as keynotes simplicity, ease of use and thorough tabulation of data that are to be handled and filed. Unfortunately many offices are adjudged upon the basis of the red tape involved and the multiplicity of forms and blanks. One of the modern books on office management says, "It is the purpose of system to smooth the way for the performance of routine tasks, to speed up work and to increase, rather than to diminish, efficiency."¹

A. Personnel. The personnel of the office is a matter of first importance. Many times the public judges the entire organization by the office personnel. The department may be given an atmosphere by the way in which these employees make contacts with pupils and the public. It is very easy for public officials to drift into an "I don't care," and a "What do *you* want," attitude. These attitudes set up an immediate defense on the part of the inquirer. In a school it encourages pupils to retort in the same tone of voice. The conduct of an office offers an opportunity for children to catch some of the finer qualities of courtesy and kindness which should be the by-products of education. "It is the only thing they will understand," is often given as an excuse for impoliteness to children who have not had opportunities and contact with the fine things in life. Above all others these are the children who need a soft answer. The line of distinction between courtesy and effusiveness is narrow.

1. *Answering the Telephone.* The telephone at best is cold and impersonal. The person answering it should have a low voice, should speak slowly and have infinite patience. The telephone inquirer should be connected directly with the person wanted, providing he is holding office hours, without the usual, "Who is speaking?" If this person is not in, the operator should have some

¹ John H. MacDonald, *Office Management*, Prentice-Hall, Inc., New York, 1928.

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such response, "So and so is not in, may I take a message?" or "May I have him call you?" or "May some one else in the office help you?" When we assume the attitude that it is a privilege to be called and that it is our pleasure to serve the public the entire attitude of the public will change.

BUFFALO PUBLIC SCHOOL ATHLETIC BASEBALL SCORE CARD

Date.....19.....
 Name of League.....when played.....
 School No.....vs. School No.....
 Won by.....Score.....
 Estimated attendance:
 Signature of Representative.....School No.....
 Signature of Representative.....School No.....
 Signature of Umpire.....

2. *Meeting the Public.* The same pleasant attitude will hold in meeting the public which comes to the office for information. There ought to be an ever increasing stream of people if the department is really functioning, an ever increasing number wanting information on all subjects relating to the physical well-being of the children in the city, and an ever increasing number wanting permits for school facilities outside of school hours. The department is judged, to a certain extent, by the number of times individuals in the community call upon it. Commercial organizations with advertising as at least a minor consideration are answering thousands of inquiries from the public that should be answered by public officials.

3. *Files.* The office files should be above all simple and usable. Information necessary for the monthly, seasonal or yearly reports should be carefully filed until such reports are made and then destroyed. Accident reports, directories, schedules, printed forms, etc., should be carefully labeled. Permanent records should be available and in sufficiently complete form to be consulted at any time. It is very worth while to keep a personal file of all bulletins, pamphlets, forms, etc. This makes it possible for the director to take material with him when he leaves a position, without disturbing the office copies.

4. *Information and Service Bureau.* The individual who handles the telephone should have at hand a large store of information regarding the department. A conveniently located bulletin board should have posted current schedules, officials, emergency

telephone numbers and all information for which the telephone operator might be called. The office should correspond to a well organized switch board room into which messages come from various avenues. These messages are organized, pigeon-holed and made ready for use whenever situations demand them. Trained clerks and secretaries can make the office render service. It is the neck of the hour glass through which records must pass.

B. Reports to the Superintendent. Certain reports should be made regularly to the superintendent of schools and to other superior officials.

1. *Budget Report.* The budget setting forth the needs of the department by schools should be presented to the superintendent in advance of the director's own budget plans.

2. *Accident Report.* The superintendent should be kept informed of all accidents, including the time and place they happened.

3. *Seasonal Reports.* The superintendent should be informed, at the end of the season, of the activities which have been organized.

4. *Reports Regarding Teachers.* The director of physical education should offer his recommendations to the superintendent for new teachers for the system; also for the transfer and advancement of teachers already in the system. The superintendent will probably want to consider this report together with the report from the principal. All problems which involve teachers should be taken up with the principal before final recommendations are made to the superintendent.

5. *Experimental Report.* The superintendent should be given a report on all experimental work in progress.

6. *Annual Report.* The annual report should summarize the activities of the year in such a way that the superintendent will be able to take in at a glance what has been going on. The report should be in terms of activities and percentage enrollment rather than of the number of participants in specific activities. The superintendent should be given a report on any progress toward objectives of health, character, etc. This report should also include recommendations for the coming year.

C. Seasonal Reports on Activities. The office should keep complete reports on all seasonal activities; the number of games, leagues, play days, track meets, participants, officials, etc. Any recommendations for the improvement of activities which may be acceptable for the following year should be written up at the close

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of the season and filed. If this is not done many of the finer points which need correction will be forgotten. If it is properly handled this becomes the basis of the following year's progressive changes.

D. Supervisor's Staff Report. This should indicate the number of contacts to improve teaching made by the entire staff.

E. Report on High School Activities. Detailed records should be kept of attendance, the activities and special events.

F. Civic Center, Playground and Club Activities. Records should be kept not only of attendance but of the types of activities.

G. Summer Playground. Upon the basis of one summer record the plan for the following year must be made.

H. Bulletins to be Issued. It is the important task of the office personnel to issue bulletins on items covering the activities of the year. These activities should be specific and should apply to different grades or cycles. One of the pathetic indications of human childishness is a belief that the people who write bulletins are the only ones who read them. Bulletins, however, will be read when they are of vital importance to the reader, such as those concerning the following: course of study supplements, seasonal activity instructions, schedules for laboratory periods, results of meetings and tournaments, outline of material for teachers' meeting sent in advance in order to stimulate discussion, etc. Bulletins should occasionally be sent to parents.

I. Coöperation with Outside Organizations. The office will have many contacts to make with outside organizations such as the park or recreation departments, service clubs, semi-public organizations and the home. This contact is of utmost importance if the public is to understand the service the department has to render (page 456).

J. Budgets. The office is responsible for the preparation of budgets for the operation of the office itself and for equipment, supplies, laboratory and playground supervision and equipment, additional janitorial service, etc. The establishing of budgets will also involve writing specifications for equipment and supplies, advertising for bids, considering bids and accepting contracts.²

K. Teachers' Meetings and Demonstrations. The office personnel should be responsible for establishing times for teachers' meetings and demonstrations under rules and regulations set down by the superintendent of schools. These as a rule involve only the specialists in the high and departmental schools. In the ele-

² Jay B. Nash, *Organization and Administration of Playgrounds and Recreation*, A. S. Barnes and Co., New York, 1928.

THE MANAGEMENT OF THE OFFICE

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INSTRUCTIONS TO CIVIC CENTER EMPLOYEES

LOS ANGELES CITY SCHOOL DISTRICT
DIVISION OF PHYSICAL EDUCATION AND ATHLETICS

(PLAYGROUND DIRECTORS)

Playground Hours

September 1—October 31 School Days: 3-5 P.M.
Saturdays: 10-12; 1-5 P.M.
November 1—January 31 School Days: 3-4:30 P.M.
Saturdays: 10-12; 1-4:30 P.M.
February 1—June 30 School Days: 3-5 P.M.
Saturdays: 10-12; 1-5 P.M.

Playground Assignments

THESE ASSIGNMENTS ARE MADE THROUGH ACTION BY THE BOARD OF EDUCATION. PLEASE DO NOT EMBARRASS THE DIVISION AND YOURSELF BY HAVING SOME ONE WORK IN YOUR PLACE WITHOUT PROPER ASSIGNMENT. ALL SUBSTITUTES MUST BE ELECTED BY THE BOARD OF EDUCATION AND THEN PROPERLY ASSIGNED EACH TIME BEFORE THEY MAY WORK AND RECEIVE PAY.

Time Reports

Send in your Time Report a day or two before the end of the calendar month, anticipating the time for the last couple of days. If any change is necessary, kindly call this office before the first day of the following month. THIS REPORT, SIGNED BY THE PLAYGROUND DIRECTORS AND PRINCIPAL, MUST BE IN THE OFFICE BY 5 P.M. THE LAST WORKING DAY OF EACH CALENDAR MONTH. ABSENCE OF REPORT MEANS ABSENCE OF PAY!

Substitutes must make out separate Time Reports at end of each month; their time must not be included on report of regular director. THIS REPORT MUST BE SIGNED BY SUBSTITUTE AND PRINCIPAL.

It is confusing in figuring Time Reports when ditto marks are used. Do not use them. Mark your time in figures, i.e. Arrived Departed.

3 5

Activity Reports

Activity Reports must be filled in correctly and are due one week following the close of each calendar month.

Errors on Reports

These errors have been prevalent. Please avoid them.

Late reports; incomplete, lacking totals or Principal's signature; incorrect check marks used in place of figures, signatures stamped. A record is kept of all late reports, errors, etc. Keep your record 100% perfect.

Warrants

Warrants will be distributed from 320 Chamber of Commerce Building about the 14th day of the following month.

Warrants Held

All warrants are held in this office until Time Reports and Activity Reports are in this office correct and complete.

Rainy Days

Kindly report on Time Reports opposite date of rainy day "Indoor Activity," reporting hours worked; or report no time with explanation of "Rainy day." Should there be a rainy day after your Time Report has been sent in to the office, it is important to phone the office as to whether or not the playground was opened. IF WE DO NOT RECEIVE THIS INFORMATION, THE TIME WILL BE DEDUCTED.

Visiting Days

When your school has a visiting day, it is suggested that you visit some other playground. Record length of time spent and playground visited.

APPROVED:

LUKE L. GALLUP
ASST. SUPT.

C. L. GLENN
DIRECTOR

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mentary schools these meetings and demonstrations are usually by cycles; kindergarten, first and second grades, third and fourth grades, and fifth and sixth grades. Some cities have better success when one grade is taken at a time. In large cities these meetings and demonstrations should be by cycles within geographical areas.

L. Substitute Teachers. The office should set up the machinery for substitute teachers when other teachers are detained by sickness or emergencies.

M. Issuing of Forms. The office should carry a complete list of forms and blanks needed in handling school situations. These should include such blanks as classification, entry, squad leader, attendance, accident, examination, parental consent to participate in athletics, and others which are constantly used.

N. Libraries. The office should establish a reference library with extra samples of best books and a project library so that outstanding pieces of work in the community may be available to the students. It should recommend books to schools and public libraries.

O. Experimenting. The office should organize various types of experiments which have to do with job analysis, reorganization of the course of study and testing results. In some cases much of the supervision is done as is illustrated on page 408. Experiments can be carried on in one or two schools and the entire community may profit by the results.

It is quite obvious from the duties which are set forth for the office that the director of physical education and health must be the guiding force. Details and much of the planning must be delegated but the responsibility rests upon the director's shoulders.

II. THE HIGH SCHOOL OFFICE

The organization of the high school office should be, of necessity, very simple. It should be accessible to the student body, faculty and the general public. Note page 220 for details of construction.

A. Records. Where records are kept great care should be taken to see that data are complete. If tests and measurements are given and the records are to be used afterwards, as a basis for program directing, accurate recording and labeling is very important. Records which are not to be used for future reference should be destroyed as soon as current reports are made. Before an elaborate report system is made the possible use of it should be determined. The tendency is to gather incomplete data promiscu-

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reports to the superintendent. These reports should give a true picture of the instructional and laboratory participation. All reports should be neatly typewritten and wherever possible covered by backing sheets. One copy should be marked "office copy" to be kept on file for future reference. A member of the department should be selected for writing reports who has special ability along that line. It is important that this phase of work be accurate in all details as the department is judged by the type of report submitted.

1. *Annual Reports.* These should be a summation of the activities of the year relative to the time and the place in which the activities were conducted, classification of children and the classification of activities. The reports should indicate the number of children who have participated in instructional and laboratory activities—the total participation, not merely the attendance at the games. They should contain a detailed statement of the teaching and health protection programs of the year and should account for all money appropriated for the department and all supplies and equipment entrusted to the department. Details regarding department organization, committees, minutes of staff meetings, etc., should also be included. The reports should make recommendations for the budget for the following year and recommendations as to programs and policies.

C. *Relationships.* The personnel of the office should maintain relationships with superior officers, especially with the principal and supervisor, so that they may be fully acquainted with all the activities of the department and, through the principal, make the school a functioning unit rather than a series of isolated departments. The establishment of details such as enrollment, schedules, excuses, passes from one room to another, etc., affect the school as a whole. The personnel of this department should establish relationships with other members of the faculty. Too often the directors of physical education have not fitted in—perhaps because they may have been younger than the other members of the faculty. At any rate they have made excuses not to enter into the social or official activities of the school.

No department of the school has such a large range of relationships with the student organization as does the office of the director of physical education. The activities of the noon hour, the after school and many of the evening periods call for coöperation on the part of the physical director. A cordial relationship should be extended to the entire community. The service clubs,

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OAKLAND PUBLIC SCHOOLS

DEPARTMENT OF PHYSICAL EDUCATION

The following $\left\{ \begin{array}{l} \text{girls} \\ \text{boys} \end{array} \right\}$ have been placed in class A, B, C, D, E, F, G, H,
(Circle Class)

for the $\left\{ \begin{array}{c} \text{Fall} \\ \text{Spring} \end{array} \right\}$ semester, 19....

(Circle Semester)

NAME _____

NAME _____

I	.....	I	.....
2	.....	2	.....
3	.....	3	.....
4	.....	4	.....
5	.....	5	.....
6	.....	6	.....
7	.....	7	.....
8	.....	8	.....
9	.....	9	.....
10	.....	10	.....
11	.....	11	.....
12	.....	12	.....
13	.....	13	.....
14	.....	14	.....
15	.....	15	.....
16	.....	16	.....
17	.....	17	.....
18	.....	18	.....
19	.....	19	.....
20	.....	20	.....

List EACH classification on a SEPARATE blank. Names need not be arranged alphabetically.

The special teacher of physical education is authorized to collect (on these blanks) names of pupils classified by any other teachers who teach physical education in grades 5 through 9. In the absence of a special teacher of physical education, the playground director should assemble lists as classified by teachers who teach physical education in grades 5 through 9.

I hereby certify to the correctness of the above classification.

Signed.....

Teacher of Physical Education or Playground Director

Approved by.....

Principal

(Both signatures must appear)

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fraternal and patriotic organizations, improvement clubs and parent-teacher associations need the help of the director; and he, in turn, needs their assistance in establishing a unified community program. In large schools the physical education department, because of its close touch with the social objectives in education, should maintain an inter-departmental coordinator for the purpose of keeping in touch with other departments of the school on the matter of extra curricular activities.

D. Instructional Programs. The physical education staff will always have as its major responsibility changing behavior through teaching. If there is more than one instructor, teaching schedules, health consultation and office hours, etc., must be arranged in a well ordered plan (page 340).

E. Laboratory Programs. The scheduling of activities in laboratory periods, either within or outside the official school day, becomes a matter of office planning. Definite suggestions on policies as to awards in these laboratory periods will be discussed on page 379.

F. Classification of Children. The routine relative to inspection, physical and health examinations, etc., must establish a proper educational procedure and must be part of, not distinct from, the office routine. Classification routine should be cut to a minimum. It should occupy the first few days of each semester and, once classified, children should remain in specified groups for the semester unless emergencies arise. Systems should be automatic as possible but plans should be established whereby students may advance in classification if great improvement in skills is shown. The office routine will include the handling of temporary excuses, inspection of children, referring them to experts and receiving them back from experts for individual attention. A procedure should be established as to who is to pass on excuses from physical education activities.

G. Classification of Activities. The office routine should include experimentation with activities and the redistribution of same in accordance with their effects upon individuals and groups.

H. Assignment of Leaders. It is a matter of office routine to schedule leaders for specific activities. Schedules in the instructional and laboratory periods should be so arranged that responsible people are in charge of activities at all times including the after school periods. Where as many as three women are employed it is assumed that one will specialize in dancing, another in sports and a third, in individual activities,—all having a part in the

ENTRY BLANK AND SCORE CARD
OAKLAND PUBLIC SCHOOLS
DEPARTMENT OF PHYSICAL EDUCATION

BOYS—GIRLS (CIRCLE)

9 Court Basketball	Kick Ball	Longball	Baseball—official
Boys' Basketball	Net Ball	Rowing	Baseball—9" to 12"
Pin Basketball	Bat Ball	Tennis—singles	Swimming
Hit Pin Baseball	Speedball	Tennis—doubles	Handball—singles
Volleyball	Field Ball	Soccer	Handball—doubles
Captain Ball	Track	.....	.....

(CIRCLE SPORT)

..... School Date.....

Classification: A—B—C—D—E—F—G—H (CIRCLE CLASS)

List names in batting order for ball games. Rule space below for innings or halves.

TEAM	SCORE
1 Captain
2
3
4
5
6
7
8
9
10
11
12
13
14
Sub
Sub

The following adult will accompany the team and act as an official if necessary
.....

I certify that the above are good citizens of my School and Playground:

.....
Teacher of Physical Education or Principal.
Playground Director.

(Both Signatures Must Appear)

NOTE—for preliminary entry in any sport mark *all classifications* to be entered on *one sheet* only. For day of play list each team on a *separate sheet*, ruled for scoring. Late entries cannot be accepted. See Schedule of Events and Play Day Bulletins for dates.

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central program. With the men two of the staff should specialize in sports and the indoor developmental activities, while the others should specialize in individual activities.

I. Equipment and Supplies. The office routine will include the supervision and care of the physical education plant, the equipment and the supplies. It should also have to do with inspection of all equipment monthly or at least semi-yearly for safety. Reports should be sent to the superintendent in order to protect the children and avoid personal and departmental liability. The care of the gymnasium floors, lockers, locker rooms, showers, the surface of the athletic fields, etc., should be definitely in mind as a routine procedure. A plan for repairing balls, bats and other equipment might be worked out with the principal or superintendent of buildings and grounds.

J. First Aid. The office of the director of physical education is usually entrusted with the administration of first aid. Too often this care goes beyond the ordinary procedure and encroaches on treatment. Medical license laws attempt to prevent this. Individuals who give such treatment subject themselves to serious criticism which may involve liability. A recent report from a high school included treating burns, cuts, removing splinters, cinder from the eye, setting dislocated shoulder, reviving fainting, caring for boils, dressing infected finger and thumb, etc. Such procedures go considerably beyond first aid. Definite instructions as to how such matters should be handled is the responsibility of the school as a whole. Records should be kept of all cases and it is wise for students to sign a blank relieving the director of all responsibility. If a nurse is available she should attend to all first aid matters. A doctor should be in attendance at all athletic contests.

K. General Schedule of Activities. The schedules of all activities outside the routine classes should be centralized. If the demand is great the hour block system should be established, permits issued and follow-up reports received. This should apply particularly to evening, summer, gymnasium, pool and yard activities. The general schedule of activities should be conspicuously posted so that the various groups move smoothly from one activity to another. Each student leader should be able to tell at a glance where to lead his squad for the next activity. An individual bulletin board at each activity is helpful. They are inexpensive and easily attached to the wall.

L. Departmental Meetings. It is advisable to hold regular meetings of the department at least once a month and special meet-

ings, whenever they are found necessary. The department secretary should be responsible for the minutes taken at each meeting. It is advisable to distribute a copy of the minutes to each member of the department after they have been typewritten or mimeographed. Certain systems require that each department submit the minutes to the principal at the end of each term. The minutes give a clear picture of the activities of the department.

M. Delegation of Responsibility. In a large high school it is necessary to cover a great many details which must be adequately supervised. A successful executive and administrator must distribute these details among the members of his department to fit the natural aptitudes and ability of those to whom they are assigned. The form on page 375 gives a picture of the details of a department which must be covered outside of the regular teaching programs of the teachers. By this method responsibility is assigned for every detail.

LOS ANGELES CITY SCHOOL DISTRICT
DIVISION OF PHYSICAL EDUCATION AND ATHLETICS

Permit No.....

.....is granted permission to use

the { Athletic Field
Gymnasium } at School
Tennis Court }

for.....; hours.....; date.....

Present permit to.....

TO DIRECTOR IN CHARGE: Return this permit to office at once, using reverse side for report on conduct.

C. L. GLENN, *Director*

Date issued:..... By.....

III. ELEMENTARY SCHOOL OFFICE

Certain records should be kept in the elementary school either by the special teacher for activities or by the room teachers. In either case the records are usually kept in the principal's office. The importance of accurate records is as essential here as in the high school.

A. Activity Records. Activity records should be very simple except where experimentation is in progress. Classification blanks, inspection blanks, health protection and health habit blanks constitute the necessary list. A bulletin board upon which is placed

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special notices, noon, recess or after school schedules is of great value.

B. Instructional Programs. Instructional schedules should be planned so that whatever facilities in the school are available are used to the utmost during the school day. Provisions for consultation with the room teachers, the special teacher in physical education, the nurse and doctor should be planned.

C. Laboratory Programs. Detailed schedules for portioning the yard for classes to play at recess, noon, and after school should be established. In large schools assignment of certain grades for after school play is necessary in order that every one may be accommodated and that facilities may not be overcrowded. Inter-room, inter-group and occasionally inter-school activities of the play-day type should be scheduled.

D. Health Coördination. Suggestions relative to proper seating of children, proper lighting, ventilation and hygienic surroundings, together with suggestions for inspection and health protection, can be found on page 440.

PROBLEMS

1. You are the director of physical education and health of a city of 300,000. It has been your policy to spend a large portion of your time in the office meeting the public, answering letters and preparing bulletins. The superintendent has sent you a note asking that you spend at least fifty per cent of the time between 9:00 and 3:15 o'clock actually supervising. How would you reply?

2. You are the director of physical education in a high school, with a staff of four people under you. Your staff contends that the record keeping of the achievement tests which you have outlined is so complicated that it detracts from the educational procedure. How would you proceed to investigate the truth of this?

3. An accident occurs in a football game. The game was approved by the board of education. The injured boy weighs 120 pounds. He was tackled by a boy weighing 170 pounds. The doctor pronounces the death caused by sudden shock and heart failure. There had been no medical examination and no physical examination. The boys had not been classified. The boy who suffered the fatal accident had had a bad heart for years and had recently recovered from a rather severe case of influenza. The boy played without his parents' permission. Could the physical director be legally held for personal damages?

4. A set of homemade bleachers, five years old, had been built by the manual training department and approved by the board of education which supplied the lumber. The physical director had sent a report of the city

building inspector to the board of education to the effect that the bleachers were unsafe. The board of education refused to tear them down or repair them because of lack of funds. A serious accident injuring several people occurred when they broke during a football game. Could the board of education be held responsible for personal damages?

5. A public recreation department operates aquatic sports on a lake. The revenue is considerably in excess of the cost of operation. One of the sports consists of launch rides for which ten cents is charged. During one of the rides a wet battery upsets and the fly-wheel of the boat throws the acid over a woman's hands, face and clothes. Her hands and face are not badly burned but her fur coat is ruined. The operator is properly licensed and the boat is properly certified. The recreation department is an official arm of the city government. Is the city liable for damages?

PRINCIPLES

1. The arrangements of the office should be simple and convenient in order to secure the maximum use.
2. The public should be met in a cordial manner both personally and over the telephone.
3. The reports of the daily, seasonal and yearly types should be made out carefully and supporting data of these reports destroyed.
4. All records which may be used later for comparison should be carefully dated and labeled.
5. All information which the office is prepared to give out should be arranged in convenient form.

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CHAPTER XIII

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CHAPTER XIV

ESTABLISHING DEPARTMENTAL POLICIES

Probably one of the most important tasks in routine administration is the establishment of departmental policies which set the trend and become the guide posts for further procedures. Ultimately the policies must be approved by the superintendent of schools, the board of education and the people. Under ordinary circumstances the superintendent of schools is the final arbitrator of them. The establishment of policies may become a swivel chair process. Under such a program they would be established by the director of physical education and health without consulting the staff or principals.

I. POLICY MAKING

Policies also may be set up democratically wherein a large group of principals, room teachers and special teachers work together. Policies so made represent one of the most valuable types of in-service training for teachers and constitute a very important part of supervision. As a rule the director of physical education and health, together with the special teachers, formulate procedures. They should be submitted to the superintendent of schools or, in large cities, to the superintendent of schools through committees of principals. Under some such plan high school policies should be submitted through the high school principals' association; junior high school policies through the junior high school principals' association; and those of the elementary school through a committee of elementary school principals. In the junior and senior high schools they could be formed by the special teachers, while in the elementary schools the director could be assisted by a representative group of room teachers. A plan of this type should make the staff largely responsible for the direction of the entire department. Where administrative conflicts are encountered the superintendent of schools should be called upon to make adjustments.

As an illustration of the working out of the suggestions just given we might consider a limited problem such as the conduct of interschool athletic activities for boys. Here a committee con-

sisting of the director of physical education and health and one or more faculty representatives from each high school formulate eligibility rules, regulations governing all contests, schedules and the selection of officials, give awards, pass upon protests, etc. The minutes of the meetings concerning all such procedures would be sent to the high school principal's committee for review. This committee in turn would forward it to the superintendent of schools. If any difficulties should be encountered the superintendent would return the recommendations with such notations. As it works out the committee has almost unlimited freedom in the establishment of policies and the conduct of activities. This is also a workable plan in communities where there is only one high school or where a number of high schools are associated in a league.

CONDITIONS COVERING USE OF ATHLETIC FACILITIES AND GYMNASIA

LOS ANGELES CITY SCHOOL DISTRICT

DIVISION OF PHYSICAL EDUCATION AND ATHLETICS

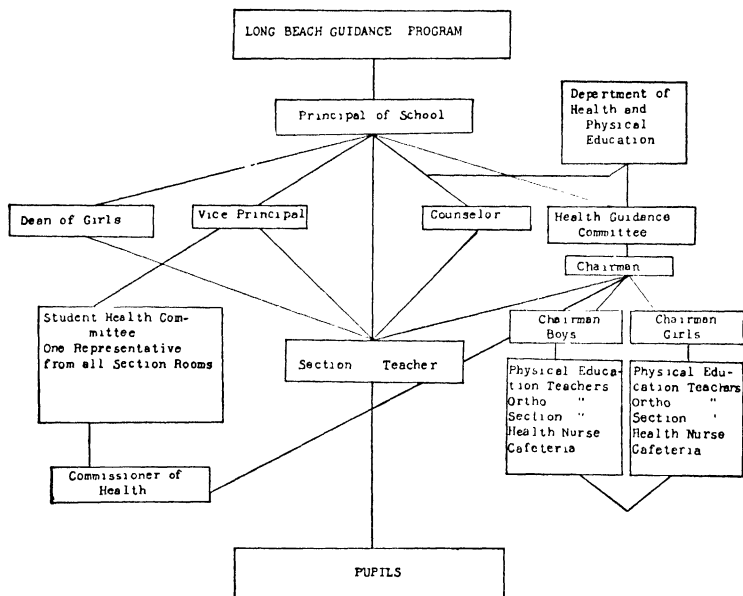
-
1. All permits for the use of athletic facilities are issued from the office of the Division of Physical Education and Athletics, 320 Chamber of Commerce Building. Phone: WE 6011, Station 110.
To avoid confusion, all arrangements for use of facilities must be made through the above office.
 2. Applications for the renewal of permits which are issued by the month must be made *before* the expiration of the last permit issued. If this is not done, facilities will not be held for continued use.
 3. A permit will not hold a field or gymnasium longer than one-half hour after the designated time, and if teams are not present and willing to play by that time, further use of facilities may be denied.
 4. There shall be no smoking, profane language, or boisterous conduct. This applies to spectators as well as players and others connected with the teams.

Note: The use of tobacco in any form on school premises is prohibited by *STATE LAW*, not by just a local ruling.
 5. Charging admission, selling tickets, or soliciting money in any manner is prohibited.
 6. Janitors or Directors in charge of grounds and gymnasias are not permitted to accept gratuities. Please do not embarrass them by making offers to them.
 7. Violation of any of the conditions stated above shall be deemed cause for depriving the teams involved of immediate and further use of the facilities.
 8. The Director in charge of grounds or gymnasias is the authority on all points regarding the conduct of teams. An unfavorable report will be the basis for refusal or further permits.

C. L. GLENN, Director.

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It is of utmost importance that policies dealing with personalities be established as a matter of routine without reference to particular situations. If policy making is deferred until some act occurs then the individuals involved may view the situation with a personal bias. Misunderstanding and even bitterness may thus arise. As an example a policy might be established stopping school athletic practice at five forty-five o'clock. As a matter of general principle every one might agree to this, but if the policy was



Guidance Program, Long Beach, California

deferred until some one school was engaged in this practice it might antagonize that school and be the basis for misunderstanding. A good administrator sees things before they happen, while a poor administrator does not even see them after they happen.

A. Types of Policies. Types of policies will of course vary with local conditions. A few samples are given to indicate possible procedure.

1. *Distribution of Supervisor's Time.* Policies should establish the amount of time supervisors should spend in the schools as compared to that spent in handling office details. A careful analysis of things to be done, the number of schools and teachers

to be visited might form the basis for such policies. It will probably be found that most supervisors spend too much time in the office and too little time in actual teaching contacts.

TABLE XLIII

HEALTH EDUCATION DEPARTMENT TWO THOUSAND BOYS

DEPARTMENTAL ASSIGNMENTS AND COMMITTEES

Teacher No. 1
Alternate, Annex X———

- Teacher No. 2*
1. Athletic Budget
 2. Athletic Awards and Assembly
 3. Boosters' Club
 4. Hygiene and Health Problem Syllabus
 5. Department Secretary
 6. Mimeographing
 7. Office Supplies and Orders
 8. Organization
 9. Reports

- Teacher No. 3*
1. Alternate Chairman
 2. Adjustments in Health Education Activities
 3. Medical Examinations and Records
 4. Follow-up of Defects
 5. Organization.

- Custodian of Athletic Field*
1. Maintenance and Supervision of Field
 2. Maintenance and Supervision of Rifle Range

- Teacher No. 4*
1. Bleacher Arrangements
 2. First Aid Patrol and Supplies
 3. Inspection and Report of Health Education, Department Equipment
 4. Lockets; Locks; Keys, Keyboards; Tools, etc.
 5. Sanitation
 6. Furniture and Apparatus
 7. Supervision and Maintenance of Offices

- Teacher No. 5*
1. Athletic Supplies
 2. Discharged Boys
 3. Field Day
 4. Health Education Records
 5. Health Education Supplies; Receipts; Storage; Distribution; Inventories
 6. Physical Fitness Test
 7. Organization

Chairman

1. Department Organization and Supervision
2. Faculty Adviser Sportsmanship Brotherhood
3. High School Games Committee Report
4. Duties of Chairman

Teacher No. 6

1. Alternate Annex ———
2. Assistant—Individual Gymnastics
3. Apparatus Exercises
4. Assistant—Gymnasium Arrangements
5. Assistant—Clippings and Photos
6. Gymnasium Bulletin Board Arrangements
7. Hygiene and Health Problem Syllabus
8. Boys' Athletic Association

Teacher No. 7

1. Associate Faculty Adviser Sportsmanship Brotherhood
2. Department Assemblies
3. Department Historian
4. Weekly Health Topics
5. Hygiene and Health Problem Syllabus

Teacher No. 8

1. Athletic Calendar
2. Athletic Clippings and Photos
3. Bulletin Boards—Platform; Gymnasium; Health Education Teachers; Library
4. Gymnasium Arrangements for Health Education Equipment; Schedules, Notices, etc.

Teacher No. 9

1. Daily Inspection—Gymnasium; Locker Room; Health Education Teachers' Record Room; Health Education Teachers' Locker Room
2. Elevator Passes
3. Individual Gymnastics; Cardiacs; Physically Handicapped; Corrective Syllabus for Department

MEDICAL SERVICE

- Dr. ——— Medical Supervisor and Examiner; Athletes and Main Building—Boys
 Dr. ——— Medical Examiner—Annexes No. ———
 Dr. ——— Sight Conservation Adviser

2. *Amount of Supplies and Methods of Distribution.* Supply standards on a per capita basis may be established as is indicated on page 258. When the superintendent approves budgets for supplies, the distribution could become a matter of routine. This would solve a troublesome problem.

3. *Type of Equipment.* The establishment of type of equipment policies would have many advantages. Equipment could always be bought in line with such standards. Parent-teacher

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groups would have some guide when they were prepared to make some donation of equipment for the school.

4. *Yard Space.* The establishment of the amount of yard space needed for the playground is of utmost importance. While it involves the entire school system it is of primary interest to the special teachers in physical education who conduct activities in the yards. Many school systems are now engaged in a program of buying adjacent property and wrecking buildings in order to bring the size of yards up to the minimum standard. The acquiring of proper areas in accordance with a policy would have saved the schools in this country a great amount of money.

5. *Athletic and Gymnasium Costumes.* Policies should be established relative to suitable exercise costumes. While legally it is not possible to do more than require the students to be suitably dressed the establishment of uniformity in dress is a way of accomplishing the desired end.

6. *Size of Classes.* It should be possible to establish the minimum and maximum size of classes.

7. *Teacher Load.* Policies could be established to indicate the minimum and maximum teacher load. Thus a plan of employment of additional directors becomes automatic.

8. *Student Leaders.* Policies relative to the use and training of student leaders is valuable.

9. *Compensation for Overtime.* The very troublesome problem of how men and women should be compensated for after school laboratory periods could be established by policy. Relieving these instructors of a full teaching program and allowing them to report late in the morning is one solution.

10. *Handling of Excuses.* Ways of handling the various daily, temporary and permanent excuses should be worked out by the physical director and be approved by the principal.

11. *Liability Insurance.* Liability insurance, relieving the school of responsibility for accidents in connection with the laboratory or instructional programs, should be determined with the aid of legal advisers, the board of education and the superintendent of schools.

12. *Towel Supply.* A policy should be established as to how towels should be supplied—whether the payment of same should come from the individual, by the collection of a small fee or from the board of education.

13. *Intramural Activities.* Policies with regard to the extent of the intramural program are valuable.

ESTABLISHING DEPARTMENTAL POLICIES 377

14. *Interschool Programs.* Broad educational policies should determine the character of interschool programs for boys and girls. A more complete discussion is on page 398.

15. *Community Use of Facilities.* The extent of the community use of facilities in the evenings and vacation periods should become a matter of policy.

The policies just mentioned are merely a series of suggestions on the many problems which arise in a year's administrative procedure. Equipment, staff, budget and other local conditions govern the situations. The establishing of policies in advance of crises is good administrative procedure if misunderstandings are to be avoided.

PROBLEMS

1. As director of physical education and health you have been accused of favoring certain athletic firms when passing on the bids for athletic supplies. It is again time to consider bids. What procedure would you establish to place yourself above suspicion?

2. An athletic firm has offered to allow all the students of your school to receive a ten per cent discount if they present a slip signed by you as director of physical education. Would you oppose such a plan?

3. The superintendent of schools has asked that you discontinue all gate receipts at athletic contests yet has allowed no budget for the purchase of athletic suits and other necessary equipment. How would you reply?

4. As director of physical education for girls in a city which has seven high schools you are notified that the Principals' Association has gone on record favoring a limited program of interschool athletics within the city. What would you do?

5. The superintendent of schools has intimated to you that he does not want you to recommend any department policy or project to him that does not have the sanction of at least half of the men and women on your staff. Would you agree with him?

PRINCIPLES

1. Administrative policies should be established in order to meet misunderstandings before they occur.

2. In determining policies the entire staff should not only be taken into the plan but into the planning.

3. All established policies should be carefully interpreted to staff members in order to avoid misunderstandings.

4. Exceptions to policies should be made a matter of administrative procedure and such exceptions should not be frequent.

5. Before policies are put into final form they should be carefully gone over with administrative officials under whom the department operates.

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CHAPTER XIV

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CHAPTER XV

SELECTING INCENTIVES

In the administration of any program of activities it is essential to keep in mind the incentives. In other words,—what are the urges, drives and pushes? We can no longer accept the modern satirist's criterion, "Any activities are good for children as long as they hate them." The idea that the things we dislike are good for us is obsolete. Educational results are much more easily obtained through guiding natural wants (page 24). The word *guiding* is used because without it individuals may become accustomed to satisfying baser survival wants on the lower portion of the scale of standards.

I. INCENTIVES ARE INHERENT IN ACTIVITIES

All necessary incentives for children to take part in physical education activities are inherent in the activities themselves. The classification of children together with the classification of activities is necessary if the inherent values are to be made apparent to the child. The incentive to act receives an added stimulation when the child is within reach of success and when social approval is likely to be forthcoming (page 293). No further incentives are needed. Any others would be comparable to giving children rewards for telling the truth. Adult leaders who offer rewards for entering into physical education activities are debasing the activity drive of childhood.

All activities are competitive. This applies to play, work and recreation activities. They are competitive in the sense that they involve overcoming. This overcoming may have to do with individuals but many times it is concerned with environment and conditions. The joy of accomplishing is deep in the neurons of the race and it becomes a driving incentive to activities.

We have already discussed in chapters X and XI the classification of activities to meet the group and individual needs of children. The very word *game* carries with it challenge, the chance of success and approval.

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A. What About Rewards? Rewards that have intrinsic value become vicious because they short circuit the whole educational process. The child loses sight of the challenge of the game because of the reward which may be money, a sweater or a club dinner. Some of the most vicious rewards are in the form of newspaper publicity and the desire for hero status.

B. What About Awards? Awards which become signs of accomplishment have a legitimate place in the educational program. Awards are given after accomplishment and not held out as an inducement to accomplishment. The desire for social approval is part of the game and, if properly controlled, a very important part. The advisability of group awards becomes apparent in a democracy. All awards should be simple emblems of accomplishment.

.....HIGH SCHOOL
ATHLETIC ELIGIBILITY CARD

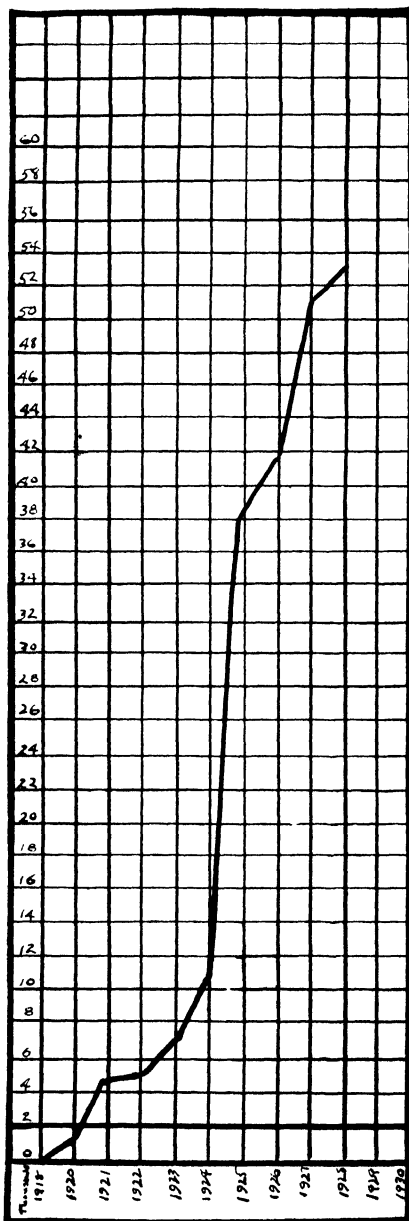
Subject	Grade	Date	Teacher's Signature

N. S. indicates Ineligible.

O. K. indicates Eligible.

II. GRADUATION CREDITS

It is contended that the granting of credit in physical education is an incentive. This we have discussed on page 379. While the granting of credit may dignify physical education in the eyes of the community and some of the teachers, and while it may make possible the procuring of better facilities, it is not likely to prove an incentive to children. The mere requiring of Latin for graduation did not prove to be an incentive. Even if the granting of physical education credit for graduation proved to be an incentive it would only affect a limited cross-section of the community, namely, those who graduate from high school. Inasmuch as some of the major benefits of physical education must be accomplished in the elementary and junior high schools the granting of credit



Growth of Intramural Sports, Columbus, Ohio

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takes on less importance. It has, however, inspired school administrators to provide better facilities. The establishment of the Carnegie unit of science, which required that a science be taught five periods a week for forty weeks and three of these five periods be lecture while two, laboratory, did help to place science on a more firm educational basis. The prescribing of minimum standards as to instructional and laboratory periods, classification of children and activities and the training of leaders would undoubtedly be of great value. Nevertheless the child's incentive still must come from the activity.

III. COLLEGE ENTRANCE CREDITS

It has been argued that a high school unit of physical education to count toward entrance requirements for colleges and universities would constitute an incentive. There is little to show that college entrance requirements have had any effect upon motivation of interest in subject matter in the high schools. Certainly rigid college entrance requirements have not lent encouragement to progressive educational methods in the high schools. In fact it has done just the opposite. It has too often made the secondary school and even the junior high school a long drilling process for the performance of "academic stunts narrowly selected, arbitrarily tested and ruthlessly insisted upon." Smith further says, "While preparation for college entrance examinations is not in theory, then, an obstacle to a liberal secondary education, in practice it fosters conservatism in curriculum planning, meagerness in non-academic program, and overinsistence on the type of competitive drill that produces unfailing high scores on examination."¹ A situation of this type is intolerable because of the fact that only one or two from one hundred individuals go to college. Hence, in many instances the entire student body is put through the college entrance requirement standard to accommodate the few.

Progressive educators in the public schools are very much interested in various types of achievements in arts, music, physical education, manual training and student government as a basis for future needs. Physical education, with its contributions to the health of an individual and to the enrichment of leisure time must not be defined narrowly by college entrance boards. The colleges might assist in establishing some minimum administrative standards in the high school. They might include among the comprehensive

¹ Herbert W. Smith, "The College-Entrance Bugaboo," *Junior-Senior High School Clearing House*, September, 1929, p. 35.

SELECTING INCENTIVES

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THOMAS JEFFERSON HIGH SCHOOL

HEALTH EDUCATION DEPARTMENT—BOYS

JOHN J. CARMODY, *Chairman*

APPLICATION FOR PARTICIPATION IN COMPETITIVE ATHLETICS FOR BOYS

Pupil's Name..... Off. Section.....
(Print) Last First

Address.....Date of Birth.....

Date of Admission to T.J.H.S.....Previous School Attended.....

Candidate for.....team No. of G. O. Card.....

Previous Athletic Experience.....

I am acquainted with the Amateur Athletic Union Rules and the P.S.A.L. rules and will govern myself thereby. I am eligible to the best of my belief.

P L E D G E

I PROMISE ON MY HONOR TO KEEP MYSELF IN GOOD PHYSICAL CONDITION, TO ATTEND FAITHFULLY TO MY STUDIES AND TO CONDUCT MYSELF AT ALL TIMES IN A SPORTSMANLIKE AND GENTLEMANLY MANNER.

Date.....
Signature of Student

My son....., has my permission to engage in school athletics and to take such trips as the teacher in charge desires. I will not hold the school liable for injuries or for medical care resulting therefrom.

Date.....
Signature of Parent or Guardian

The boy named hereon,, is physically fit to engage in
Date.....

Medical Examiner

Eligibility certified:

Date.....
H.S.G.C. Representative

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entrance requirements a standard of health and skill to help indicate a student's ability to pursue profitably a college course. Physical education might be offered as one of several *non-scholastic* subjects for college entrance requirements. It should be remembered, however, that such a set-up would not, in and of itself, form an incentive and that there are dangers that the spirit which is so necessary in making a truly educational program might be lost.

LOS ANGELES CITY SCHOOL DISTRICT

DEPARTMENT OF PHYSICAL EDUCATION ELEMENTARY SCHOOLS

This is to Certify that.....
of the.....School, achieved distinction in the District
Athletic Activity during the season.....and is hereby awarded the

SILVER CERTIFICATE

Classification .....	.....
Event .....	.....
Place .....	.....
Record .....	.....

Superintendent.
Principal.
Assistant Supervisor.

LOS ANGELES CITY SCHOOL DISTRICT

DIVISION OF PHYSICAL EDUCATION AND ATHLETICS

This is to Certify that.....
achieved the superior record in the Self-Testing Events during the
.....and is hereby awarded the

GOLD CERTIFICATE

School .....	.....
Grade .....	.....
Age .....	.....

Phys. Ed. Teacher
Principal
Supervisor

IV. THE INTRAMURAL PROGRAM^{2, 3, 4, 5}

This program offers the best incentives for physical education activities in which the entire student body can participate in classified groups. The intramural method can be expanded almost to the point of universality. It is applicable to school situations from the fifth grade through the high school, junior college, college and university. It offers opportunities for organic development, for the learning of neuro-muscular skills, and it is an excellent laboratory for emotional-impulsive development. An example of this type of intramural activity is seen in the schools of Bronxville, New York. The school system has one high school, one junior high school and one elementary school. The city has a population of about seven thousand, and the school about twelve hundred. Bronxville employs four full-time physical directors, one nurse and one half-time doctor. The juniors and seniors have forty-five minutes of physical education twice a week and the elementary students have twenty-five minutes daily. Health teaching is integrated with other subjects upon the basis of this program. In the Eastchester Recreation Commission an extensive intramural set-up was organized for all grades above the fourth. By careful scheduling the various groups once or twice a week in a variety of seasonal sports as high as ninety-seven per cent of the entire enrollment has actually participated in after school laboratory intramural activities. It is interesting to note that on the basis of this showing of an intramural schedule representative teams are picked near the close of the seasons and these teams play only three or four games with neighboring schools.

Many cities report an organization of intramural activities where a large per cent of the boys and girls participate weekly. Rochester,⁶ New York, has a slogan, "A game for every boy and girl, and every boy and girl in a game." This ideal is being realized in Rochester. Wichita, Kansas; Philadelphia, Pennsylvania; Columbus, Ohio; Tulsa, Oklahoma, and Montclair, New

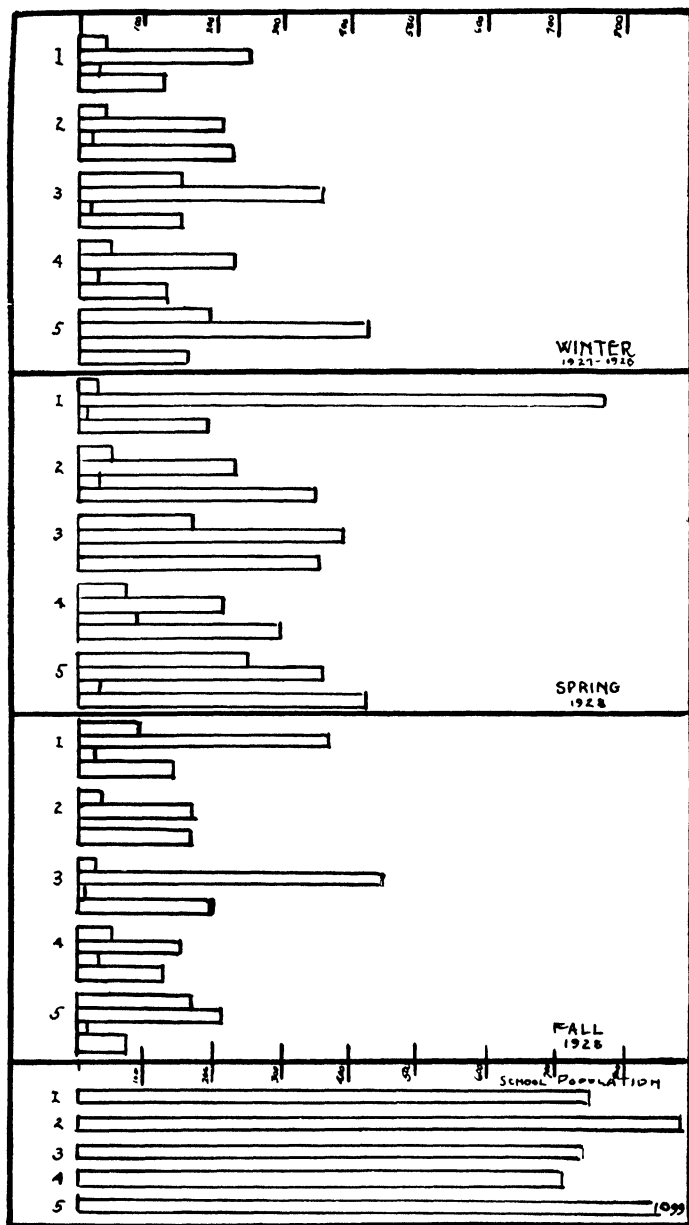
² George Little, "Intramural Athletics for Boys," *Junior-Senior High School Clearing House*, November, 1930, p. 134.

³ Warren G. Spangler, "The Relation of the Intramural Activities to the Athletics Schedule," *Junior-Senior High School Clearing House*, November, 1930, p. 150.

⁴ McCall Aldrich, "Equalized Athletic Competition for Junior-High-School Students," *Junior-Senior High School Clearing House*, November, 1930, p. 164.

⁵ A. G. Costerhous, "Intramural Athletics for the Junior High School," *Junior-Senior High School Clearing House*, November, 1930, p. 169.

⁶ Herman J. Norton, "After-School Athletic and Recreation Activities in the Senior High Schools of Rochester, New York," *Junior-Senior High School Clearing House*, January, 1930, p. 278.



Growth of After-School Playground Activities in Wichita, Kansas, in Terms of Total School Population

Jersey, are excellent examples of organizations of this type. Other examples are on pages 193 and 196. Note the figure on page 395 of the Thomas Jefferson High School, New York City. The intramural program offers the finest opportunity for realizing the objectives of the physical education program.

V. THE INTERSCHOOL PROGRAM^{7, 8, 9, 10, 11, 12}

Athletics are a phase of physical education and physical education is a part of the general education program. Therefore every step in the organization of athletics should be measured by its contribution to objectives (page 6). The National Education Association has gone on record as believing that every child is entitled to all-round physical education opportunities and that athletics form a phase of this program.¹³ The Society of State Physical Directors and numerous surveys of opinions from school principals and parents sustain the viewpoint that athletics are a phase of physical education. Recent athletic reforms at Columbia University, University of Pennsylvania, Amherst, Yale and other of the leading universities indicate that our colleges and universities make athletics educational. President Gates of the University of Pennsylvania wishes to make "coaches responsible not to the athletic association but to the college or university itself. The coach would be the head of a department of physical education and as much a member of the faculty as a professor of Latin or English literature. And of equal importance with stadium-filling contests, Gates suggests, would be a system of intramural athletics."¹⁴

President Butler of Columbia University says, "It is not the business of the college to entertain the public or to allow them to interfere in the administration of the college as it deals with foot-

⁷ Merle Prunty, "Athletics for All or for a Few," *Junior-Senior High School Clearing House*, November, 1930, p. 129.

⁸ Galen Jones, "The Efficient Control and Administration of Physical Education and Athletics in Secondary Schools," *Junior-Senior High School Clearing House*, November, 1930, p. 139.

⁹ M. H. Small, "Permanent Values of Athletics in the Junior High School," *Junior-Senior High School Clearing House*, November, 1930, p. 158.

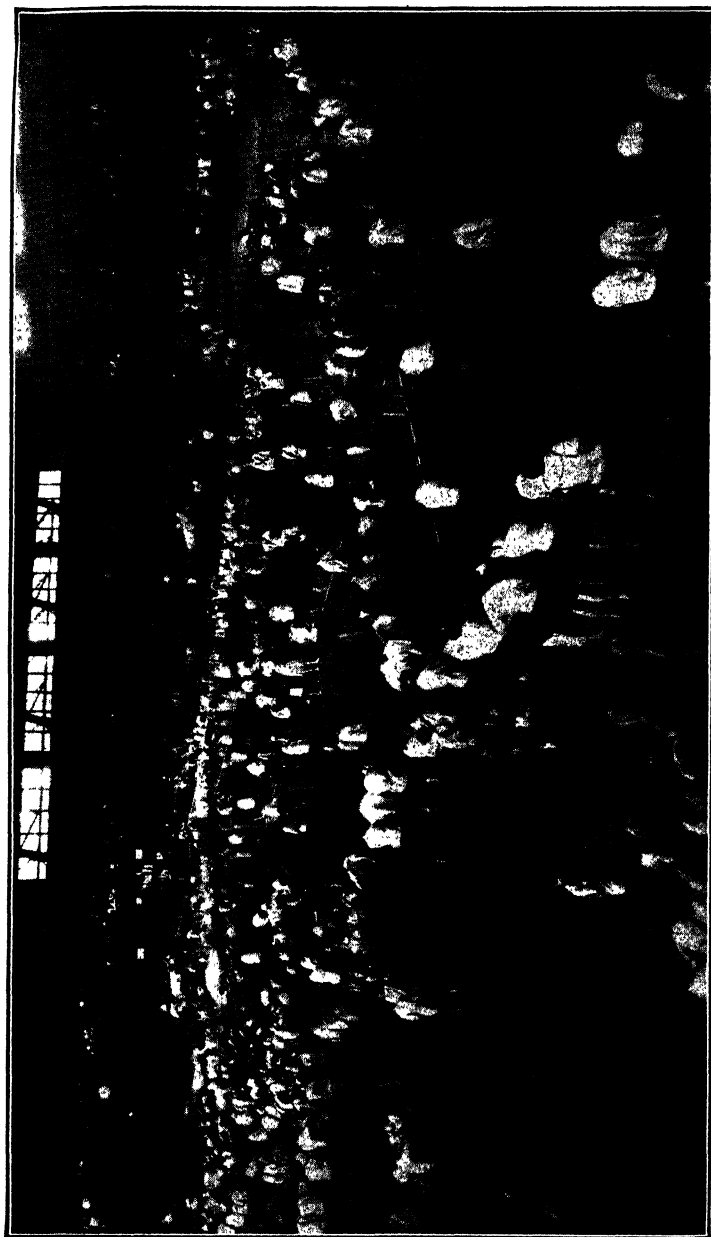
¹⁰ Thomas E. Sanders, "Junior-High School Athletics," *Junior-Senior High School Clearing House*, November, 1930, p. 168.

¹¹ Russell Rippe, "Extending the Benefits of Competitive Athletics," *Junior-Senior High School Clearing House*, November, 1930, p. 149.

¹² S. O. Rorem, "Some Social Values of the Athletic Program," *Junior-Senior High School Clearing House*, November, 1930, p. 144.

¹³ *The Development of the High School Curriculum*, National Education Association, Sixth Yearbook, Department of Superintendence, Washington, D. C., 1928, p. 461.

¹⁴ The New York Times, Magazine Section, February 15, 1931, p. 7.



Courtesy of Dr. William Burdick.

State of Maryland Play Day

ball or any other sport. One cannot escape realizing the real importance of sports and exercise in undergraduate life.¹⁵ As a solution for this he advocates an endowment fund which will make possible the conduct of athletics without dependence on admission fees paid by the general public. This general contention is sustained by the report of the Carnegie Foundation.¹⁶ The same viewpoint was voiced by the North Central Association of Colleges and Secondary Schools¹⁷ at their meeting in Chicago, March 20, 1930, at which time that very resolution was passed.

It has already been pointed out in chapters II and VI that the basis of interest in activities is the game element. All play activities have as a root competition. The term *competitive athletics* is therefore a misnomer as there is no such thing as non-competitive athletics. Because of the strong wants which surround the athletic program it becomes the most powerful tool under leadership for the guiding of behavior. We have indicated that although individuals may be well developed on the organic and neuro-muscular levels so that they have a high rating in any of the capacity tests, they may still need development on the emotional-impulsive level. Opportunity for the latter is offered in a supreme way in athletics. The evil influences of colleges and universities have made many people give up hope of school athletics becoming educational. They have, however, been willing to abolish these games, in other words, to burn down the house to get rid of the rats.¹⁸ Intelligent behavior would be to get rid of the rats. Steps are being taken in the right direction. National and state championships are being abolished. High school principal's associations are taking a stand. State directors of physical education are organizing athletics to bring about educational results. The Society of State Physical Directors has gone on record as opposing American football for junior high schools, and all nation-wide organizations such as the Junior Olympics. It also opposes national championships and advises the careful regulation of state championships. The Committee on Interscholastic Athletics in the North Central Association sets forth the following principles and objectives:¹⁹

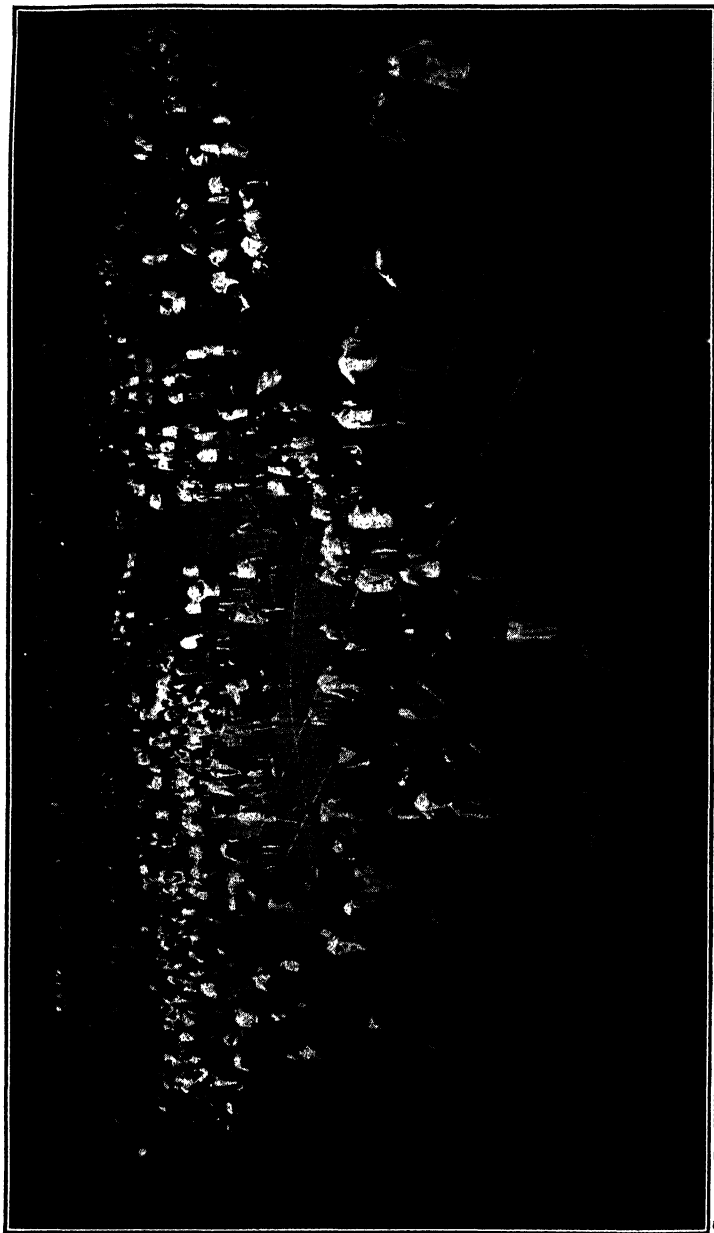
¹⁵ The New York Times, Section 1, January 11, 1931, p. 1.

¹⁶ "American College Athletics," *The Carnegie Foundation for the Advancement of Teaching*, Bulletin Number 23, New York, 1929.

¹⁷ E. E. Morley, "The Work of the Committee on Interscholastic Athletics, North Central Association," *Junior-Senior High School Clearing House*, November 1930, p. 132.

¹⁸ Carl L. Schrader, "Athletics—An End or a Means?" *Education*, June, 1928.

¹⁹ E. E. Morley, *op. cit.*, pp. 132-134.



Courtesy Dr. William Burdick.

State of Maryland Play Day

Athletics offers one means of attaining the educational objectives set forth in the Cardinal Principles of Secondary Education. They contribute to the health, leisure time, citizenship, and character objectives.

All athletic competition in high schools should contribute to the physical education program and should constitute an integral and important part of it.

The administration of athletics should respect the personality of players and should not violate sound pedagogic theory by exploiting individuals for the glory of the town, the school, or the coach.

The activities of a school should not be limited to the four major sports; since athletics, to be educative, should form habits, skills, and attitudes which carry over into later life. To conform to this principle, more attention should be given to the minor sports, tennis, golf, swimming, volley ball, handball, etc.

Under a democratic school administration, each pupil is entitled to an opportunity, equal with every other pupil, to profit by the free instruction of the school up to the limit of his capacity. The development of "superathletes" in high school may constitute a violation of this principle.

Public high schools are provided and supported by the people to train better citizens. Athletes in tax supported high schools should be examined to determine whether they contribute to such an educational aim.

The administration of all athletic contests participated in by the school should be entirely controlled by school authorities.

The physical education program, including athletes, should encourage pupil initiative, responsibility, and leadership. Some types of coaching employed may violate this principle.

Sportsmanship ideals apply equally to player and spectator—to winning and losing. Fair play, courtesy, generosity, self-control, and friendly feeling for the opposing school should not be sacrificed in the desire to win.

The outcomes of athletics in right attitudes, fruitful knowledge, moral habits, and useful skills which will contribute to the pupil's future satisfaction in life should form the immediate educational objectives of these activities. Sufficient skill to create an abiding interest in a few active sports by every pupil in the school is not too high an ideal for which to strive. What the crowd wants and will pay for is not always necessarily educational for player or spectator.

The attitude of this Committee is favorable toward interscholastic athletics in every high school providing they form in reality an integral part of the whole physical education and health program of the school. The Committee further asserts that definite tangible values are contributed by a well administered program of athletics and among these values may be listed the following:

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Stimulation of loyalty and school spirit among the student body.

Encouragement of good sportsmanship and fair play among contestants and spectators.

An outlet for the excess energy and spirit of boys at a time of their life when such energies might otherwise be dissipated disastrously.

A means of uniting community interest in the school by awakening a universal response.

On the other hand, the Committee recognizes certain dangers which may easily invalidate and destroy all the advantages which interscholastic athletics may bring. Such phases as the following are likely to contribute most of the dangers and disadvantages of athletics.

Excluding from coaching and practice all pupils except those of outstanding athletic ability.

Allowing rivalry between schools to develop into ill will and hatred.

Loose administration of eligibility regulations.

Overemphasis of winning and failure to appreciate effort and spirit.

Excessively long playing schedules, outside interference with school control, overemphasis on championships, lack of proper medical examination of athletes, discouraging initiative by "overcoaching," special privileges to athletes, etc.

A. Boys' Athletics. Making high school athletics educational involves the following:

1. The debarring from athletics of all those who are physically unfit.

2. A complete classification of all of the boys in the school as a basis of interinstitutional competition. The standing of the teams can be based upon the total number of games won in this classification.

3. In cities where there are a number of high schools competition should be restricted to the city district.

4. The limitation of the geographical area in which teams play in order to avoid overnight trips.

5. The abolishment of gate receipts with a compromise on a very low entrance charge to the public.

6. The support of athletics by the school district as a phase of education.²⁰

7. The employment of a director of physical education to each athletics on the same time and salary basis as all other faculty members.

²⁰ Lewis Hoch Wagenhorst, *The Administration and Cost of High School Interscholastic Athletics*, Teachers College, Columbia University, New York, 1926.

8. The establishment of eligibility rules for good citizenship within the institution. These rules to be the same for athletics as for debating, orchestra participation or the holding of any office or trust in the institution.

9. The increase of player responsibility and the decrease of adult responsibility.²¹



Rural Play Day, Athens, Georgia

10. The making of the interinstitutional schedule an outgrowth of the intramural schedule, thus making a limited interschool schedule.

11. A refusal on the part of the schools to permit interschool programs to monopolize facilities and available funds until the entire student body is also provided with similar privileges.

12. The definite organization of a guest-host program of good feeling and friendliness on the part of the participants. The program must be one of spirit rather than the letter of the law. The letter can be violated but the spirit demands that the opportunities be organized for the realization of educational objectives. By making interschool athletics the peak of the triangle, the moti-

²¹ Frederick Rand Rogers, *The Future of Interscholastic Athletics*, Teachers College, Columbia University, New York, 1929.

vator for mass athletics, they will serve an educational purpose.

B. Girls' Athletics.^{22, 23, 24, 25} To a large extent the principles here outlined apply also to girls' athletics. They need opportunities for establishing group loyalty probably even more than boys. In the past the point to be criticized most in girls' athletics was the method of conduct rather than the underlying principle. Guidance by competent women leaders seems to be the way out rather than forbidding contests. All activities are competitive—the question is where on the scale does it become bad educational procedure to extend competition? Several principles seem to apply for the administration of interschool or interleague competition for girls:

1. All teams should be taught by trained women.
2. Girls' rules should apply to all games.
3. The geographical area of competition should be small.
4. Games should be limited to three or four a season.
5. All teams should be an outgrowth of the intramural program.
6. Publicity should be carefully controlled.
7. Games should not be made spectacles for large audiences.
8. The play day idea—not necessarily the split team—which involves large numbers should be encouraged.
9. Special care should be taken to guard the health of the players.
10. Special stress should be placed on the guest-host procedure.

C. Organization in a Large High School.

The fact that schools can be organized so that laboratory athletic activities are given large numbers is illustrated in the Thomas Jefferson High School,²⁶ New York City. The school has an enrollment of over two thousand boys. It employs a staff of eight men, including a swimming instructor. The instruction periods are forty minutes in length and five periods per week are required. The boys' department is equipped with one gymnasium, a medical office, a hygiene room, a swimming pool, a small yard and an athletic field five hundred feet by three hundred feet. Groups are classified by the height-weight-age plan. The instruc-

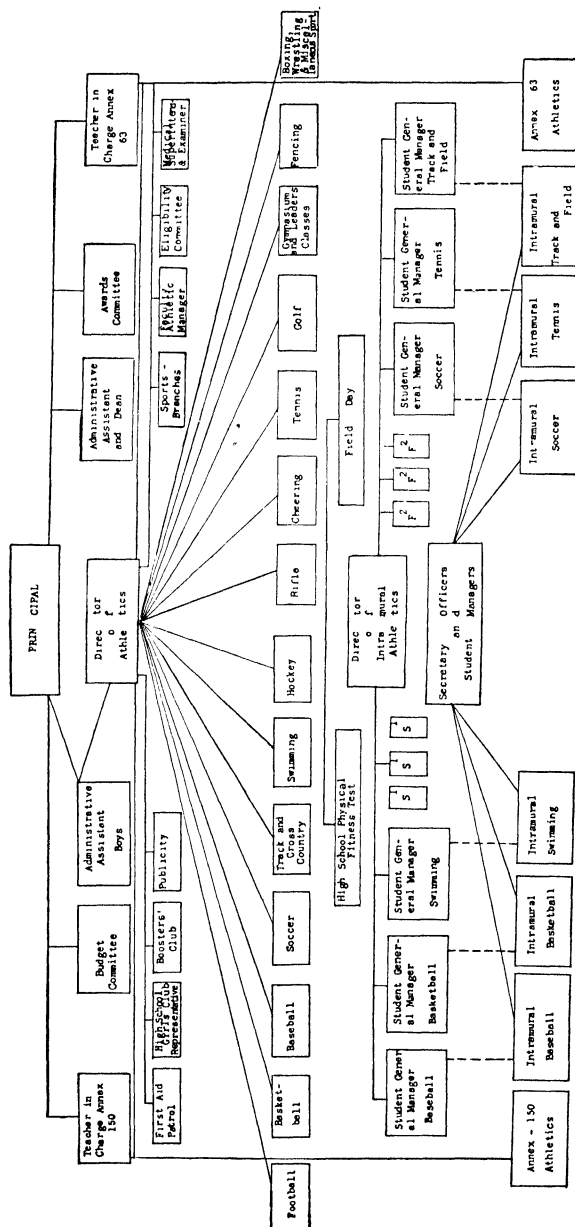
²² Hazel D. Rex, "The Relation of Girls' Athletics to Physical Education," *Junior-Senior High School Clearing House*, November, 1930, p. 152.

²³ *Girls Athletics*, Department of Education, State of Ohio, 1930.

²⁴ Ethel Perrin and Grace Turner, *Play Day—The Spirit of Sport*, American Child Health Association, New York, 1929.

²⁵ *Women and Athletics*, A. S. Barnes and Co., New York, 1930.

²⁶ J. J. Carmody, Acting Chairman of Department; Philip Bloom, Secretary.



	1. Student	Officials.
	2. Faculty	Officials.
1. Student		
2. Faculty		

Boys' Athletic Organization Plan, Thomas Jefferson High School, New York City

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tion includes first aid, safety education, personal hygiene and health essentials, community hygiene and sports elements. The latter attempts to educate for anticipated leisure time. Examinations are divided into two parts, the medical and the physical. The first,—heart, lungs and respiratory system—is made by the health service, a group of neighborhood physicians; the second—defects of posture, teeth, eyes, orthopædic, nutrition, etc., plus all follow-up work is done by the Department.

An elaborate administrative plan is necessary to carry on the intramural and interschool athletics. New York City schools do not compete with out-of-city schools. Mr. Bloom, secretary of the Department, describes the plan as follows (page 395) :

1. *Budget Committee.* The budget committee, whose function is to appropriate funds for the athletic program, is composed of faculty and student representatives. The secretary of the general organization is usually in charge of all finances of the school and is indirectly connected with athletics, inasmuch as all expenditures are made from the general school fund. A method of handling the financial side of athletics is to have each member of the board of athletic coaches submit a budget of anticipated expenditures for his own particular sport to the director of athletics of the school who, in turn, submits the entire budget of all expenditures at the budget meeting. The principal of the school acts as the chairman of the budget committee at the meeting and each coach is represented on the committee. A representative of the student body is also present. After an amount sufficient to efficiently carry out the athletic program is voted upon the director of athletics is given the power to appropriate the stipulated amount for athletics. The lump total is divided according to the needs of each activity.

2. *Faculty Athletic Manager.* The faculty athletic manager may be a member of the health education department or may be chosen from the faculty outside of the department. His duties are as follows:

a. He is in charge of the finance of all receipts from games and contests.

b. He is in charge of the sale of tickets for all games.

c. He is responsible for the printing of all tickets for games.

d. He is responsible for the collection of all gate receipts.

The faculty athletic manager coöperates with the director of athletics and the secretary of the general organization as all receipts are put in the general fund of the school treasury.

3. *Faculty Adviser of Eligibility.* He is appointed by the director of athletics and decides cases for eligibility. He is in constant touch with the section officers, who furnish him with details of scholastic standing of all pupils who are members of the various athletic squads. He is also in close coöperation with the dean of boys who handles disciplinary cases of members of athletic teams.

4. *Faculty Adviser, High School Games Committee Representative.* He is chosen by the director of athletics and attends all meetings of this body and disputes arising at all games under the auspices of the public schools athletic league. He reports the important points discussed at meetings to the director of athletics who discusses them at the conference held with the board of athletic coaches.

5. *Faculty Adviser, Sportsmanship Brotherhood.* He is in charge of the problem of sportsmanship of the school. It is his duty to promote sportsmanship through the organization of sportsmanship leagues—a member of the league in each class. The member is chosen for his high quality of sportsmanship. Through this methods of class organization and projects undertaken by members of the classes in sportsmanship this mortal element may be developed to a high degree in the school.

6. *Awards.* The awards committee passes on the character and scholarship of the athlete before the award is given. Many systems have been worked out as to the giving awards. It must be made clear that many times the pupils emphasize the getting of the award more than the activity itself. This in itself is very dangerous as it is not symbolic of the achievement.

7. *Field Day.* A teacher from the health education department—usually the track coach—is designated by the director of athletics to act as faculty adviser in charge of field day.

8. *Medical Supervisor and Examiner.* The medical supervisor and examiner attends to injuries sustained at contests. He also examines all athletics for physical defects before they are permitted to participate in athletic contests.

9. *Publicity Committee.* This committee is in charge of a faculty adviser who has a staff under his supervision which attends to all publicity connected with the athletics of the school. All material to be published is first approved by the faculty adviser.

10. *Boosters' Club.* This club is organized for the purpose of selling tickets for athletic contests. It may be under the supervision of a faculty adviser from the health education department

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or from another department connected with the school. The faculty adviser coöperates with the faculty athletic manager.

11. *Board of Athletic Coaches.* The board of athletic coaches consists of teachers representing all major and minor sports. A large city high school may have the following sports program: football, basketball, baseball, soccer, track and cross country, swimming, hockey, rifle, cheering, tennis, golf, gymnasium and leaders' clubs, fencing, boxing, wrestling, etc. A faculty adviser from each of the above named sports would constitute the board of athletic coaches.

12. *Intramural Program.* The intramural program is under the direct supervision of a member of the health education department and known as the director of intramural athletics. Each official class teacher is a member of the intramural staff and is responsible for athletics in his official class. The class teacher appoints or elects a student from his class to represent the class in intramural contests. The following sports may be easily put on an intramural basis: baseball, basketball, swimming, soccer, tennis and track. Student general managers may be appointed by the director of intramural athletics to represent the above sports and made responsible to him.

a. *Student and Faculty Officials.* These officials may be chosen by the director of intramural athletics to officiate in intramural contests. It is a good idea to organize the officials into a club to discuss rules, policies and interpretations.

The laboratory program of the Thomas Jefferson High School in New York City seems to have the following advantages:

(1) The games and contests are made educational due to student participation in the management.

(2) Students are given more opportunity to purpose, plan and execute their own undertakings.

(3) It affords a wide range of intramural athletics—"Athletics for All."

(4) It reaches the greatest possible number for the development of character, initiative, coöperation and leadership.

(5) All students are examined before they are allowed to participate in athletic contests.

PROBLEMS

1. The superintendent of schools has noticed that the department of physical education bases promotion from one grade to another entirely on attendance. He notes that no pupil has ever failed either a promotion or a

graduation. He feels that such a procedure is undignified and that it lowers the status of the teaching program. He asks you to investigate the situation and make a report to the Principals' Association. What would you report?

2. The high school principal has told you that in the reorganization of his school all activities must carry their own drive. Grades, promotions and other incentives must be incidental. He finds that he can do this in the science, dramatic, and manual training courses, but that the activities of the health program seem to lack interest because they all represent the things the child does not want to do. He has asked you, as the health coördinator, to suggest a remedy for the situation. What would you tell him?

3. Your high school football team has won the county championship. The advertising club of the city is very proud of the fact and proposes giving the football team a banquet this year and future years in which it is victorious. Furthermore, the club volunteers to solicit the cups for all athletic teams for the coming year. How would you answer this invitation and why?

PRINCIPLES

1. Activities should be thought of in terms of their interest to the child; in other words, what incentive they offer to participation.

2. Educational procedure should not be short circuited by offering rewards either in the form of prizes which have intrinsic value or in the form of abnormal social approval. If awards are given they should be simple records of accomplishments.

3. The way in which an activity is organized may be part of the incentive. Interschool and intramural programs should be organized from the standpoint of the degree to which they represent an incentive for the entire student body.

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CHAPTER XVI

THE SUPERVISION OF INSTRUCTION

One of the most important phases of leadership has to do with supervision. The director of physical education and his central staff in a city or county will find that supervision bulks largely in the sum total of their yearly duties.

I. WHAT IS SUPERVISION?

Supervision has as its main objective the improvement of instruction. This improvement can be brought about not only through the teacher-pupil relationship but through the principal, superintendent and all other agents and agencies which have to do with bringing about the ultimate objectives of the curriculum.

Withers says, "School supervision aims fundamentally to influence internal dynamic and psychological adjustments of the agents, agencies and means of instruction to the nature, needs and conditions of children. Its primary function is to improve instruction. It deals with personal adjustments and with things only in a secondary sense as administering directly to these adjustments."¹

The Department of Superintendence of the National Education Association says, "Supervision seeks to provide an environment in which men and women of high professional ideals may live a vigorous, intelligent, creative life."²

In relationship to physical education and health we might define supervision as all positive means consciously employed, directly or indirectly, to improve the teacher's service in the conduct of physical education and health.

II. THE RELATIONSHIP OF SUPERVISION TO ADMINISTRATION

Supervision and administration as well as teaching were at one time the function of the same officer. Even to-day supervision and administration are usually handled by the same individual. Although, theoretically, the two functions can be separated, actually,

¹ John W. Withers, *Outline of Systematic Supervision*, New York University Press Book Store, New York, 1926, p. 1.

² *The Superintendent Surveys Supervision*, National Education Association, Eighth Yearbook, Department of Superintendence, Washington, D. C., 1930, p. 9.

there is a great amount of overlapping. The supervisor occupies a position between the administrative officers and the teachers. The supervisor is interested primarily in the improvement of instruction but he is called upon many times to act as administrative officer.

School administration, however, is a broader term than school supervision. Administration has to do with the overhead problems of the whole education program—the financing, the selection of business and instructional staff, costs, etc. Supervision deals more specifically with the improvement of instruction. Certainly from the standpoint of administration as a whole supervision looms as one of its most important phases. The superintendent of schools and the principals are both administrators and supervisors.

The position which supervision occupies between administration and instruction, and the amount of overlapping which exists, is well indicated in the following table: ³

TABLE XLIV

RELATED SUPERVISORY ACTIVITIES ARISING OUT OF ADMINISTRATIVE,
INSTRUCTIONAL AND COÖRDINATE SITUATIONS

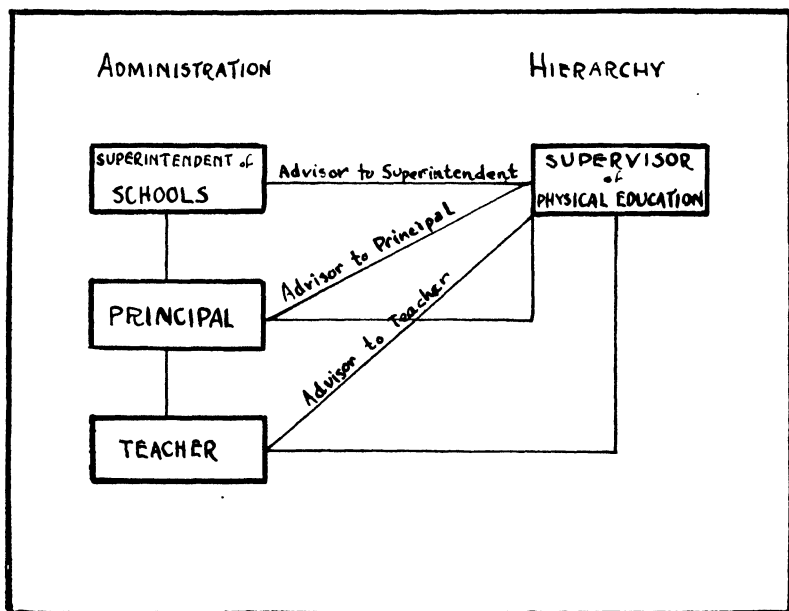
I. <i>Administrative Situations</i>	II. <i>Coördinate Situations</i>	III. <i>Instructional Situations</i>
1. Select textbooks	Rate textbooks	Recommend textbooks
2. Organize schools and classes	Classify pupils	Adopt courses of study to needs of pupils
3. Determine curriculum	Construct courses of study	Interpret courses of study
4. Employ teachers	Inspect teaching	Criticize teaching
5. Advise teachers as to school board policies	Prepare a teachers' handbook	Advise teachers on professional conduct
6. Keep office hours for conferences	Confer with teacher over discipline	Confer with teacher over methods
7. Establish uniform marking system	Examine teachers' marks	Improve written examinations
8. Determine budget for supplies	Standardize supplies	Suggest proper use of supplies
9. Finance a professional library	Organize a professional library	Direct professional reading of teachers
10. Organize testing program	Administer standardized tests	Help teachers provide for individual differences

³ *Ibid.*, p. 23.

III. THE RISE OF SPECIAL SUPERVISION

The special supervisor developed during the latter part of the nineteenth century. This development came about with the introduction of new subjects into the curriculum which the teachers already in service were not prepared to teach. The administrative officers also were not familiar with these subjects.

Physical education represents one of these special subjects. The supervision of physical education on any comprehensive scale cannot be said to have existed before 1910. The supervision of physical education is now recognized in all of the large cities and is gradually assuming a place in the counties.



Relationship of Supervisor to Administrative Officials and Teachers

IV. ADMINISTRATIVE OFFICERS AS SUPERVISORS

A. Superintendent of Schools. The superintendent of schools is a supervisor as well as an administrator. Hughes found that superintendents spent, as a median percentage of their time,

twelve and seven-tenths on supervision. This is in contrast to thirty-two and eight-tenths per cent which is recommended they should give to supervision.^{4, 5}

B. High School Principal. Eikenberry^{6, 7} found that a large percentage of the high school principals' time in the large schools was devoted to supervision. In the small schools supervision ranked third from the standpoint of time allotment.

C. Elementary School Principal. The elementary school principals spend approximately twenty-seven per cent of their time in supervision in accordance with eleven surveys.⁸ This is in contrast to forty-one per cent of the time which five surveys think they should give to supervision.⁸

V. RELATIONSHIP OF SUPERINTENDENT TO SUPERVISOR

Two types of supervisors must be recognized in connection with this subject, namely, the general supervisor whose duties are confined to the academic subjects and the special supervisor under whose responsibility come physical education, music, art, home economics, etc.

The supervisor of physical education becomes the expert adviser not only of the teacher and principal but of the superintendent of schools (chapter XVI, page 404). In such advisory capacity to the superintendent he is in most cities given great leeway. A survey of the situation in many cities indicates that the superintendent allows the special supervisors a wide range in professional matters:⁹

The supervisor of physical education should stand ready to advise the superintendent of schools relative to administrative and supervisory policies. As a superintendent's expert advice should largely guide the board of education, so the expert advice of the supervisor should guide the superintendent with regard to policies in the physical education field.

⁴ C. L. Hughes, "The Functions of the School Superintendent in Theory and Practice," *American School Board Journal*, April, 1928, pp. 55-56; May, 1928, p. 70.

⁵ "The Principal as a Supervisor," *Research Bulletin* of the National Education Association, November, 1929.

⁶ D. H. Eikenberry, *Status of the High School Principal*, Bulletin Number 24, Washington, D. C., 1925, pp. 51-54.

⁷ "The Principal as a Supervisor," *op. cit.*

⁸ "The Superintendent Surveys Supervision," *op. cit.*, p. 25.

⁹ "The Superintendent Surveys Supervision," *op. cit.*, pp. 36-37.

TABLE XLV

ITEMS IN WHICH SUPERINTENDENTS ALLOW SUPERVISORS OF PHYSICAL EDUCATION ALMOST COMPLETE FREEDOM

<i>Items Where Freedom Is Allowed</i>	<i>Per Cent of Super- intendents Allowing Complete Freedom to Supervisors</i>
Methods and Devices.....	85%
Content of Course of Study.....	76%
Assignment of Time Allotment.....	54%
Details of Class Work.....	83%
Schedules of Visits.....	64%
Schedules of Meetings.....	65%
Topics for Teachers' Conference.....	80%
Types of Demonstration.....	89%
Testing in Subjects and Grades.....	73%
Improvement of Teachers and Service.....	80%

VI. SPECIAL SUPERVISION IN THE FIELD OF PHYSICAL EDUCATION

Although physical education represents one of the special subjects it occupies a position quite distinct from some of the others. The supervision of physical education is of help not only to the specialist in physical education and health but also to the grade teacher. Supervision must therefore be considered from these viewpoints:

A. Relationship of the Supervisor of Physical Education and Health to the Grade Teacher. In the non-departmental organization of the public school it is highly recommended that the grade teacher conduct the activities in physical education and health. Even in the platoon system it seems unwise for departmentalization to extend below the third grade.

The supervisor of physical education and health comes in direct contact with the elementary principal and the grade teacher. When a supervisor comes to an elementary school he is administratively within the jurisdiction of the principal of the school. His entire relationship with the school should be in line with the policy of the principal. Upon his arrival he should report to the principal and, before leaving, should go over with him all suggestions which he would make. This relationship would differ somewhat in accordance with the various types of organization and supervision

but on the whole would have to be maintained in order to avoid administrative conflict.

1. *Types of Supervision.* The Eighth Yearbook of the Department of superintendence recognizes three systems of supervision:¹⁰ the dualistic, the line and staff, and the coördinate. These types are illustrated diagrammatically in figures on pages 473-475.

2. *Duties of Supervisors.* The duties of supervisors in physical education vary according to the rules and regulations of local departments. Some of the particular points in the summary of the administrative policy will be noted in each of the following cities:

TABLE XLVI
SUPERVISORY-LOAD FOR A CITY OF 300,000¹

	<i>Schools</i>	<i>Children</i>	<i>Teachers</i>
Elementary School:			
1 Supervisor for kindergarten-primary...	45	20,000	500
1 Supervisor for upper-elementary.....	35	17,000	425
Junior and Senior High Schools:			
1 Supervisor of physical education for boys		Special teachers	25
1 Supervisor of physical education for girls		Special teachers	25
City-Wide Assignment:			
1 Director			
1 Health coördinator			
Doctor ²			
Nurse ³			
2 Playground supervisors			
1 Director of evening recreation			

¹ New plan of supervision (page 408).

² One medical school officer for every 4,000 children.

³ One nurse for every 2,000 children.

OAKLAND, CALIFORNIA¹¹

a. The supervisor is not an inspector but a constructive adviser—a teacher-helper.

b. The mark of good supervision is the inspiration of teachers with a love of teaching and joy of achievement.

c. The chief function of the supervisor is the improvement of instruction, demonstration teaching and conference.

¹⁰ "The Superintendent Surveys Supervision," *op. cit.*, p. 53.

¹¹ A. S. Barr and William H. Burton, *The Supervision of Instruction*, D. Appleton and Co., New York, 1926, pp. 33-34.

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d. The supervisor works directly with teachers but "should endeavor to see the principal before leaving the building and make clear any instruction that has been given in order that the principal may be in a position to reinforce the supervision given."

e. Supervisors are not administrators. "Any administrative matters discovered needing attention should be reported to the principal."

f. The principal is both an administrative and a supervisory officer.

g. The principal is executive-in-chief, supreme in his school, and directly responsible to the superintendent of schools.

h. The supervisor has no authority to command or direct the principal.

i. The supervisor is the technical adviser of the principal just as he is of the superintendent.

j. Cases of conflict in the instructional policy between principal and supervisor are to be settled by the superintendent, in whose hands rest the general instructional policy for the school system.

k. Special supervisors are a necessary part of an effective organization.

l. The supervisor comes from the office of the superintendent as the specialized expert in a given technical field of instruction.

DETROIT, MICHIGAN ¹²

a. Supervision is not inspection but has for its purpose the improvement of instruction.

b. The chief functions of supervision are research, training and inspection.

c. Supervisors are not administrative officers.

d. The principal is both an administrative and a supervisory official.

e. The principal is supreme in his school and is directly responsible to the superintendent of schools.

f. The supervisor has no authority to command or direct the principal.

g. Cases of conflict in instructional policies between principals and supervisors are settled by the superintendent.

h. Special supervisors are a necessary part of an effective supervisory organization.

i. The supervisor is an expert in his chosen field.

j. The supervisor is responsible for the training of both teachers and principals.

k. Special supervisors are not directly responsible for class room visitation.

l. Special supervisors are charged with the responsibility of evaluating general instructional conditions within their specialized fields.

m. Supervisory visits are made on call.

n. Supervisors furnish standards for judging and improving teaching.

o. Teachers' meetings are voluntary.

¹² *Ibid.*, p. 36.

p. The work of special supervisors is coördinated through a supervisory council.

The points of agreement and disagreement in connection with several plans of supervision as set forth by Barr and Burton are summarized:¹³

- a. The purpose of supervision is the improvement of instruction,—not inspection.
- b. Research must play an important rôle in supervision.
- c. Teacher-training is an important function of supervision.
- d. Special supervisors are not administrative officials.
- e. The principal is both an administrative and a supervisory official.
- f. The principal should be supreme in his school and directly responsible to the superintendent of schools or his representative.
- g. That cases of conflict in instructional policies between principals and supervisors should be settled by the superintendent of schools.
- h. Experts, or special supervisors are necessary in an effective supervisory organization.
- i. The work of the special supervisors should be coördinated through some kind of a supervisory council responsible to the superintendent.

Some further inferences may be drawn:

- a. The training functions of special supervisors should apply to principals as well as teachers.
- b. Supervision should apply to the junior and senior high school as well as to the elementary school.
- c. Special supervisors in training principals should furnish the latter with the tools of supervision—standards, rating scales, educational tests, etc., by which they may evaluate the work of their teachers.
- d. All notices, announcements and directions from special supervisors to the teachers should pass through the hands of the principal.
- e. Principals and not supervisors are responsible for the work of individual teachers.
- f. Supervision should be thoroughly democratic in spirit.

There are a few points upon which there does not seem to be complete agreement:¹⁴

- a. That supervisors should visit on call, that is, at the request of the teacher or principal.
- b. That class room visitation is a minor part of the work of the special supervisor.
- c. That the survey function—teacher rating, testing for the purpose of

¹³ *Ibid.*, pp. 38-39.

¹⁴ *Ibid.*, pp. 39-40.

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evaluating, inspection, reports upon instructional conditions—is an administrative function.

The duties of a director of physical education in relationship to a grade teacher might be summarized under two general headings; first, helping the teacher when specific trouble arises or when called by the teacher or principal and, second, the type of general supervision of which the teacher may or may not take advantage.

The former type of supervision might be likened to a situation where an individual calls in a skilled physician to diagnose the case and make recommendations. The latter type of supervision, to the great broadcast of health suggestions which the individual may take or leave as he deems wise.

3. *Specific Supervision—on Call of Teacher or Principal.* When the supervisor of physical education and health is called in to analyze a particular situation, great care should be taken that he see all the elements involved. At least the following should be given major consideration:

- a. Teacher
 - (1) Training in physical education
 - (2) Past experience in physical education
 - (3) Attitude toward physical education
 - (4) Ability to enter into activities
 - (5) Social viewpoint
- b. Child
 - (1) Intelligence
 - (2) Physical condition
 - (3) Type of children—foreign, railroad and hill district
 - (4) Attitude of parents
 - (5) After school activity, i.e., household duties, work, etc.
- c. Situation
 - (1) Space for activity
 - (2) Time allotment
 - (3) Material with which to work
 - (4) Attitude of the rest of the school
 - (5) Type of school—rural, village, city, consolidated
 - (6) Use of curriculum

Supervisory judgments should never be made in haste. The old idea of sleeping overnight on the matter is as good now as ever. Judgments should be made in the light of the following:

- d. General Criteria of Judgments:
 - (1) Made after a number of visits
 - (2) Made impersonal

- (3) Frank but kindly
- (4) Point the way to success rather than dwell on past failure
- (5) Judgments of worth, never opinions

4. *General Supervision.* In contrast to specific supervision where the supervisor comes in on call of the principal or teacher to diagnose a particular teaching situation we have general supervision. This procedure takes the form of sending out to teachers a series of general suggestions. It is assumed the teachers will select suggestions which are applicable to all situations. Thus suggestions on seasonal activities and methods, in service training, book reviews and news of outstanding local or national importance are presented. This general supervision in the form of broadcasting of suggestions will be illustrated by the following:

- a. Required Meetings. For teachers new to the school or to the grade.
- b. Optional Meetings. To be scheduled by grades or cycles of two grades.
- c. Demonstrations. To be handled the same as optional meetings and to be conducted by outstanding teacher.
 - (1) Singing games
 - (2) Tag games
 - (3) Stunts
 - (4) Dramatic games
 - (5) Health projects
 - (6) Interschool noon schedule
 - (7) After-school schedule
 - (8) Play days
 - (9) Track meets
- d. Bulletin Service. Should be brief and not more than two a term.
 - (1) Methods
 - (2) Sample lessons
 - (3) New literature in field
 - (4) Library facilities
 - (5) Projects
 - (6) Announcements of lectures
- e. Plans for Visiting Days
 - (1) In city
 - (2) Out of city
- f. Plan Project Library. Place to file exhibits and records of past projects.
- g. Objective Standards. Standards should be used in which teachers have had some voice in their making.
- h. Check list
 - (1) Are classes out of doors, weather permitting?

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LOS ANGELES CITY SCHOOL DISTRICT DEPARTMENT OF PHYSICAL EDUCATION & ATHLETICS

SUPERVISION OF SCHOOL YARDS FROM POINT OF ACCIDENT PREVENTION

School.....	Principal.....	
1. No. of children in Kindergarten and Primary Grades (Kindergarten. through 3rd Grade.)		
2. No. of children in Upper Grades (4th through 6th or 8th Grade).		
3. Total.		
4. No. of teachers in school.		
5. Are recess periods given to all children at same time?		
6. If not, how are groups divided?.....		
.....		
7. Are <i>all</i> teachers assigned to yard duty?		
8. If not, what percentage is assigned?		
9. Names of teachers excused from this duty.	Reason given	
.....	
.....	
.....	
10. Are teachers assigned to general duty or is each given a specific duty?		
11. What is Principal's apparent attitude toward this question?		
Alert	Casual Interest	Indifferent
12. What are the teacher's attitudes?		
13. What methods are used to prevent accidents		
.....		
.....		
14. Are certain areas set aside for (a) Specific Activities		
(b) Traffic Lanes		
15. Who has been assigned the responsibility of inspecting apparatus?		
16. What are the specific accident hazards, if any?		
.....		
17. How could these hazards be eradicated?		
.....		
18. Recommendations and suggestions.		
Signed		
Assistant Supervisor		

- (2) If indoors—are windows up?
 - (3) Are coats and outer wraps off?
 - (4) If fifth and sixth grades or above, are boys and girls separated?
 - (5) Has the class proper material?
 - (6) Are squad leaders being used?
 - (7) Is there a waste of time?
 - (8) Is there any one point of the program which is given too much emphasis?
 - (9) Is class orderly, going to and from exercise room?
 - (10) Do children return to class room flushed and breathless?
 - (11) Are health practices checked?
 - (12) Are all children active in games?
 - (13) Does the spirit of joy predominate?
 - (14) Are all children alert and responsive?
 - (15) May game be stopped and quiet obtained immediately?
 - (16) Are standards of courtesy and coöperation being fostered?
 - (17) Do activities carry over into play times?
 - i. Encourage Professional Progress
 - (1) During year—special courses and institutes
 - (2) Summer school
 - j. Outline plans for improving school room conditions
 - (1) Heating
 - (2) Summer school
 - (3) Ventilation
 - (4) Seating (criteria for comfort: feet on floor, seats level, desks neither too high nor too far from seats)
 - k. Supervisor should be easy to reach. He should have scheduled office hours and should not be behind too many locked doors.
 - l. Supervisor should be coöperative with other supervisors.
 - m. Supervisor should confer with janitor in regard to the problems of seating and of ventilation.
 - n. Supervisor should meet with principals as a group to discuss what to expect of the room teachers who are directing physical education.
5. *Valueless Supervision.* Teachers feel that the following types of supervision are of little value:
- a. Required General Meetings. They claim that meetings are called too often, are poorly planned and just “rehash” old ideas.
 - b. Elaborate Bulletin System. They believe too many bulletins, not well organized, result in confusion.
 - c. Course of Study not well Organized. Too many references are made to other books. Too many suggestions are made for which specific help is not given.
 - d. No Opportunity for Discussion. Teachers claim they do not have

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an opportunity to ask questions at meetings or during the supervisor's office hours.

- e. Interruption of Class Work. In the supervision teachers object to interruption.
- f. Visits too Few and too Infrequent. Teachers feel that supervisors do not get a clear enough picture to be helpful in making suggestions to them.

LOS ANGELES CITY SCHOOL DISTRICT

DIVISION OF PHYSICAL EDUCATION AND ATHLETICS

Notes of regular visit of Mr.....teacher of Physical Education
.....19.....A.M.P.M.

1. WORK WAS GIVEN:
 - a. In gymnasium.....
 - b. On field.....
 - c. In classroom.....
2. WORK CONSISTED OF:
 - a. Games.....
 - b. Gymnastics.....
 - c. Athletics.....
 - d. Wholesome Living.....
 - e. Self-testing activities.....
3. TEACHER'S WORK CONSISTED OF:
 - a. TeachingMin.
 - d. CoachingMin.
 - b. ObservationMin.
 - e. DirectionMin.
 - c. SupervisionMin.
4. INSTRUCTION:
 - a. Accurate
 - b. Indefinite
 - c. Inaccurate
5. RESPONSE OF PUPILS:
 - a. Attentive.....
 - b. Enthusiastic.....
 - c. Indifferent.....
 - d. Work hard.....
 - e. Interested.....
6. ATTITUDE OF TEACHER:
 - a. Enthusiastic
 - b. Patient
 - c. Interested
 - d. Neutral
7. RESULTS OBSERVED THIS VISIT:
 - a. Excellent.....
 - b. Good.....
 - c. Satisfactory.....
 - d. Improving
 - e. Unsatisfactory.....
 - f. Doubtful.....
8. CONDITION FOR WORK:
 - a. Favorable
 - b. Unfavorable
 - c. Weather: Hot..... Cold..... Windy..... Rain.....
9. MADE SUGGESTIONS TO TEACHERS:
 - a. Yes.....
 - b. No.....
10. TEACHER ASKED FOR HELP.....
MADE SUGGESTIONS.....
11. FORMER SUGGESTIONS USED: a. Yes..... b. No.....
12. DID THE LESSON OR WORK REFLECT PREPARATION:
 - a. Careful.....
 - b. Medium.....
 - c. Fair.....
 - d. Unsatisfactory.....
13. CONFERENCE WAS HAD WITH THE TEACHER: a. Yes..... b. No.....
14. CONFERENCE PLANNED:
 - a. Date
 - b. Hour
 - c. Place
 - d. Length of Visit.....
15. REMARKS:

Signature
Supervisor of Physical Education

6. *Helpful Supervision.* Teachers have found the following practices helpful:

- a. Specific Meetings. For new teachers in the school grade.
- b. Demonstration Meetings. Conducted by outstanding teachers.
- c. Brief Bulletins. Information on methods and new material.
- d. Visits to Teacher. Help work out schedules rules of games; help with some point of technique in game or folk dance.
- e. Assist School. Arrange noon and after-school schedules.
- f. Assist Teacher. Help teacher in arranging for visiting days in city and out of city. Assist in working out a time allotment, a plan for selecting squad leaders and in grouping the class into squads.

7. *Helpful Suggestions for Health Coördination Program.* Principals and teachers have checked as helpful the following items relative to the supervisor's place in a health coördination program:

- a. Arranging a plan for morning inspection.
- b. Scheduling of hours for the doctor and nurse.
- c. Following up children who need removal of defects.
- d. Arranging for free clinical research for children who cannot afford other service.
- e. Making provision for charts and scales for the class rooms.
- f. Working out plans for detecting defective eyesight and hearing.
- g. Working out plan for better seating of children and adjusting of desks.
- h. Working out ways of eliminating dust from playground.
- i. Assisting in the coöperation of the home in regard to health practices.

VII. SUMMARY

Supervision in the large sense is a procedure of keeping teachers growing in their profession through personal and group contact, curriculum construction and revision, and in-service training. Supervision aims to help teachers make effective in the lives of children the objectives of education.

PROBLEMS

1. The superintendent of schools of a city of two million has prepared a bulletin, in conjunction with the principals, to the effect that supervisors of physical education are to visit the elementary school room teacher only upon the request of the teacher or principal. How would you organize your activities to meet this situation?

2. A supervisory policy of the department of physical education and health has been approved by the superintendent of schools, to become effective in the junior high schools in the city. One of the junior high school principals refuses to put the approved plan into effect. What steps would you take to clear up this problem?

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3. You, as the director of physical education and health in a large city, have a number of special teachers in the junior and senior high schools who have been there for many years. The superintendent has appointed you chairman of a committee, consisting of all these special directors, to act in an advisory capacity to him. The special teachers are not willing to take the steps which you desire. On a straight vote on progressive procedures your recommendations would lose. Nevertheless, the superintendent is desirous of your making the changes. How would you proceed?

PRINCIPLES

1. Supervision duties must be distinguished from administrative duties although the two are often performed by the same individual.

2. The superintendent and the principal are supervisors as well as administrators. Supervisors of special subjects are advisers to superintendents, principals and teachers.

3. Supervisors must not assume the attitude of being inspectors but must establish friendly, helpful relationships with the teachers in which there is mutual confidence. The success of the supervisor can be gauged by the extent to which the teachers feel their advice is indispensable.

4. Supervision should have as one of its aims a happy, growing, alert body of teachers.

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CHAPTER XVII

THE TRAINING OF LEADERS

The securing of those desirable educational by-products of activities, which in the last analysis are the objectives of our curriculum, rests upon leadership. We have discussed leadership needs in chapter XII. In the city and state teacher training institutions the problem of pre-service training administratively becomes a part of the public school system. A very brief outline of the problem is presented here purely as a guide to school administrators in the selection of leaders who have had thorough training. It is readily conceded that the passing of courses alone neither makes the teacher nor the man. The other qualities which have to do with success were mentioned in chapter XI. Scholarly attainment in the vital subject matters underlying a profession must always remain the point of departure for successful teaching. There is a growing tendency for school administrators to look into the background training of men and women rather than merely into their athletic record. The fundamental principles of successful teaching are largely the same in all subjects of study because human nature is the same. Courses of study vary primarily in the particular skills which become the educational tools. Physical education should constitute the core or trunk curriculum for the fields which involve leisure time leadership. It has been shown that the background training experience in directors of physical education, boys' department leaders, camp and Y.M.C.A. directors, playground and boys' clubs superintendents and scout executives is over ninety per cent common units. It appears then that one core curriculum could be set up for all these types of leadership. Skills, methods and laboratory procedures could be established to meet special needs. The leadership process should be thought of in terms of pre-service training and in-service training. The feeling that much stress must be placed on in-service training is becoming very strong. The training for one's job really starts when the job starts. The teacher sees the application to a real rather than a theoretical situation. In-service training has been covered under the heading of Supervision of Instruction in chapter XVI.

I. WHO SHALL BE ADMITTED TO TEACHER TRAINING INSTITUTIONS?

A committee recommended to the Second Conference of Institutions giving Professional Training for Physical Education which was called by the Office of Education March 30, 1927, the following admission requirements:

A. The completion of a four-year high school course, and that those students proposing to specialize in physical education be allowed extensive participation in physical education activities, and be encouraged to take a background of science.

B. A written recommendation submitted from the director of physical education of the high school from which the applicant graduated.

C. The passing of a series of ability and efficiency tests in order to estimate the student's native ability and rhythmic sense.

D. The passing of a standard intelligence test.

E. The passing of a complete health examination.

F. Students should be placed upon probation for a minimum of one year during which time the applicant should demonstrate marked ability in activities and scholarship together with strong leadership qualities.¹

Dr. Willard P. Ashbrook, of New York University, sets up in his thesis the following entrance requirements:

Scholarship—all candidates should be required to present:

A high school diploma

Evidence of sixteen high school units

Medical Examination—all candidates should:

Submit to a medical examination given by school doctor and staff at the institution

Be graded extremely low for market defects in general health and specifically in speech, auditory, respiratory, postural, visionary, glandular and emotional mechanisms, and also height, weight and cardiac conditions which are below standard

Personal Examination—all candidates should:

Submit to a personal interview and to be given a personal examination by a staff of not less than three faculty members which should include director of activities, school doctor and chairman of admissions committee

Present verbal evidence of interest in the profession

¹ "Professional Training in Physical Education," *Physical Education Series No. 9*, Department of the Interior, Washington, D. C., 1928.

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Present approved records of a variety of educational, athletic, recreational and student activities

Be graded extremely low for below standard character traits

Recommendations—all candidates should be required to present a recommendation from the:

Principal of the school

Director of physical education

Tests—all candidates should be given:

An intelligence test

A group of achievement tests

A series of conduct situations.

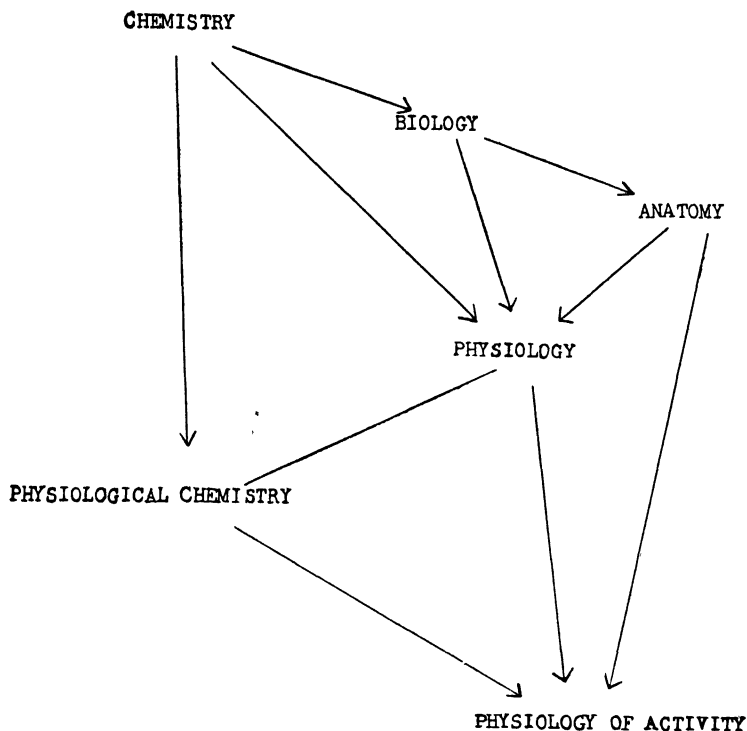
II. WHO SHALL BE GRADUATED FROM TEACHER TRAINING INSTITUTIONS?

It is undoubtedly necessary to have high entrance requirements. Individuals who obviously cannot become leaders should not be encouraged to enter. Any peculiarities of speech, posture, etc., which would detract from one's leadership qualities should disbar an individual. The real test, however, is, *who should be graduated?* The probation period should extend through the second year. Students should not be allowed to enter the junior year unless the faculty of the school is firmly convinced that it can give the candidates an unqualified recommendation on graduation. This is a fair procedure because the students can transfer to other fields of major activity at the end of the second year without loss of credit.

III. WHERE SHOULD SPECIALIZATION START?

The general tendency of curriculums is to reserve any specialization until the beginning of the junior year.² The only exception to this is in special courses where the technique of the subject should be started in the freshman year. Specialization, apart from the core curriculum, might be allowed in health coördination, physical therapy, playground, recreation and club leadership and administration and supervision where individuals have had wide experience in the field. By proper planning a student should be able to complete the core curriculum along with one line of specialization in five years,—the core curriculum to take four years and the special work one.

² *Report of the Committee on the Curriculum of the 139 Institutions Preparing Teachers of Physical Education in the United States*, J. H. McCurdy, Editor, *American Physical Education Review*, Springfield, Mass., 1929.

*Inter-relationships Between Sciences*

IV. WHAT SHOULD CONSTITUTE THE CORE CURRICULUM?

This curriculum should be built upon a job analysis of the functions of the physical educator and an analysis of the training necessary to give competence to perform these functions. The undergraduate curriculum is organized to meet the demand for a four year course that will give:

The general culture necessary for the leadership of children and youth,
A general training in education problems,

The personal, technical, and professional skill to fulfill the teaching and managerial functions of the physical educator.

This undergraduate curriculum is organized to give competence to meet the requirements for licenses or credentials to teach physical education in the various cities and states of the United States. It

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also gives competence for leadership in summer camp organizations and playground and recreation centers. It prepares students to enter graduate courses without loss of time either in meeting academic requirements or in making up science courses which are essential for advanced study in physical education.

A. Required Courses in General Subjects:

Academic Requirements—16 Points

English Composition ³	4
Social Science	4
Public Speaking ³	4
English Literature	4

The object of this group of courses is to lay an academic foundation. The necessity of the leaders being able to handle English composition, to be familiar with English literature and social science and to be skilled in public speaking is apparent to all.

B. Required Courses in Foundations Sciences:

Foundation Sciences Requirements—32 Points

Biology	8
Chemistry	8
Hygiene	8
Anatomy	4
Physiology	4

Physical education must have foundation in science if leaders are to be the real guides in the growth and development of the child. These courses must be of the laboratory type where two hours of laboratory work is given for each hour of lecture. The figure on page 31 indicates the relationship of these subjects to physical education. Biology, chemistry, physiology, hygiene, the specialized subjects in physical education and possibly physics, lay the general foundation. Professor Malcolm E. Little discusses the contributions of these courses as follows:

1. *Chemistry.* An elementary course in chemistry should present to the student a knowledge of atomic and molecular structure, together with the mechanisms of combination of the above and the simpler chemical compounds. The course as given carries the student into organic compounds, without which knowledge, physi-

³ Enough composition and public speaking should be required to enable the student to express his thoughts in writing and to use his voice without strain in public meetings—on the gymnasium floor and on the athletic field.

ology is merely a mass of words. The course as given simplifies enormously the teaching of both biology and physiology.

2. *Biology*. Biology is a study of the structure and function of organisms and is fundamental to the understanding of the human organism. The human body can be taught as an isolated organism but the inadvisability of the method has been thoroughly demonstrated. There is no other place in which the student can be shown:

a. The underlying relationships of organisms and the generalizations which relate the protoplasm as such. This involves not only the physical and chemical structure of protoplasm but the dependence of animals on plants for necessary foods.

b. Developmental anatomy and physiology—the organization of tissues and the paradoxical dependence and independence which exist among the cellular structures of the human body. Without the phylogenetic idea embryology cannot become clear. A conception of embryology is necessary to appreciate the functional and structural changes which occur from birth to senescence.

c. The laws of heredity are necessary to understand the mechanisms controlling genetic relationships. Experimental genetics, physical anthropology and diagnostic medicine are daily adding data to show the relationships between heredity and bodily form and function even to its pathological expressions.

3. *Anatomy*. As most of our students do not study human anatomy, mammalian structure and its phylogenetic relationships lays the foundations for all future study of physiology and activity. Without laboratory dissections kinesiology is nothing but stated and undemonstrated principles. In physiology it is hopeless to attempt to teach the function of an organ unless the student knows the organ exists.

4. *Physiology*. Physiology should be a summation of the principles of chemistry, biology and anatomy. A short course permits only a brief review of the underlying principles of general physiology, with concentration upon mammalian function. In this course the student should learn to bring together the technique learned in prerequisite sciences—manipulation of apparatus and dissection—and to coördinate theory and practice in its application to the function of the human body.

5. *General*. The above sciences should lay the foundation and help to prepare the student for an intelligent understanding of advanced work in physiology, chemistry, physiology, of activity, physical examinations and organic examinations.

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C. Required Courses in Education:

Education Requirements—12 Points

Educational Psychology	4
History of Education	2
Educational Sociology	4
Philosophy of Education	2

Background courses in philosophy, sociology, history, and psychology of education, give definite contacts to general education and tend to make the physical education teacher less of a specialist.

D. Required Courses in Physical Education:

1. *Courses on Interpretation, Objectives, Principles, Leadership of Teaching, Educability, and the Program:*

Physical Education Requirements—28 Points

Principles of Physical Education	4
Nature and Function of Play	2
General Kinesiology	2
Physiology of Activity	2
Adaptation of Activities to Individual Needs	2
The Physical Examination	2
Tests and Measurements in Physical Education	2
Principles of Teaching in Health and Physical Education	2
Methods of Teaching Physical Education Activities	2
Administration of Physical Education in Schools and Play Centers	2
Physiological Chemistry	2
Character Education	2
Methods of Teaching Health	2

This gives a standard undergraduate view of physical education. Professor Hetherington says, "It gives competence to organize and teach children in the activities and to get results and it gives the basis for advanced personal study or graduate work; so if an individual feels he needs more study in order to be better fitted to render a larger service to children or to advance to a more responsible position, he has the opportunity to go on and on in a regular academic progression to higher degrees without penalty."⁴

2. *Special Methods—12 Points.* Six courses in special methods should be required in accordance with the particular vocational and sex requirements. Choice of special methods may be made in the teaching of activities such as swimming, dancing, coaching

⁴ Clark W. Hetherington, "Graduate Work in Physical Education," reprinted from the *American Physical Education Review*, April and May, 1925, p. 5.

athletic activities, handcraft, nature study, camping, and club organization, to little children and preadolescent children. As a rule these courses should be divided equally between discussion and participation.

3. *Personal Technique in Activities—14 Points.* By allowing fourteen points for activities, the granting of four points per year, with the exception of the senior year when the student is doing practice teaching, is possible. Generally the acquiring of these techniques will take two hours a day for three and one-half to four years. Tests should be established so that if the student acquires these skills before the end of the three and one-half years he may be exempt from the requirements and allowed to specialize.

4. *Observation and Practice Teaching—6 Points.* It is of utmost importance that students have supervised teaching in such periods and that they make contacts with the laboratory schools where demonstrations are in progress.

5. *Personal Technique at Camp—4 Points.* With the tendency to-day to stress education in the open physical education students should be required to attend organized camps for at least two months, one month at the end of the freshman year and the other at the end of the junior year. This establishes in the student a spirit of coöperation and unity which can well be acquired under camp conditions. It also familiarizes the prospective teacher with the related subjects of camping. Camps should emphasize skills in waterfront control, boating, canoeing, the technique of over-night camping, handcraft and nature lore.

6. *Electives—4 Points.* There are four electives which are recommended for the establishment of an appreciation of art, music, contemporary civilization and other subjects which contribute to a broad life outlook.

A. *Health Supervision and Health Coördination.* Specialization here would involve micro-biology, special courses in health, nutrition, dietetics and methods and principles of teaching health. It would also involve courses on general supervision, sociology and mental hygiene.

B. *Recreational Leadership.* Specialization in recreational leadership in parks, playgrounds, camps, etc., should involve office management, mechanical drawing, city planning, elements of engineering, and the study of trees, shrubs and forestry. Organization and administration of community play and recreation and boys' and girls' clubs should be emphasized. Courses in methods and techniques should be given in order that individuals will be able

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to handle the particular situation for which they are preparing.

C. Physical Therapy. Specialization in physical therapy would involve additional physics, anatomy and approximately one year studying physical therapy in an institute devoted to that purpose.

D. Administration and Supervision. Specialization in administration and supervision should be allowed on the undergraduate level only where candidates have had wide experience.

Many candidates have been helped by such a curriculum because they have graduated from two- and three-year normal schools which have not issued degrees.

V. GRADUATE CURRICULUM

A. General Objectives. The graduate courses are organized with the distinct purpose of helping to perform with skill the full functions of the physical educator in positions of large responsibility. Such positions are represented:

1. By the teaching heads, administrators or directors of large elementary schools or playgrounds, junior or senior high schools, young men's and women's associations, normal schools, colleges and industrial establishments.
2. By the specialists dealing with the handicapped, disordered, delinquent, defective and psychopathic patients.
3. By the supervisors of teachers in school and playground systems.
4. By the overhead administrators in school, playground and recreation systems.
5. By the teachers of courses in the science of physical education in teacher-training institutions.

The full functions of the physical educator require the ability:

1. To formulate a program of activities and adapt activities to age and individual capacities and needs.
2. To give an examination and test in order to classify individuals according to needs and capacities in activities and to give advice.
3. To manage and teach the physical-education activities so that developmental and character-training results are secured.
4. To teach health or hygiene.
5. To prevent accidents, render first aid and protect health through health supervision.
6. To administer a department organization.

Graduate courses are offered to serve each of the above functions and are arranged as a central curriculum to give general competence

to graduate students; also, as special curricula, by adding one or more courses from other departments, to facilitate the specialization necessary for different positions. Special emphasis is placed on advanced courses for the higher training necessary:

1. To perform the supreme functions of physical education in the organic examination for capacity and in construction of curricula for scientific adaptation.
2. To administer departments including the activity, health teaching and health protection programs.
3. To teach courses and direct curricula of professional education in physical education in teacher-training institutions.

Graduate work has as its objective the training of experts in any of the lines of specialization previously discussed. Expertness may be gained either by experience or graduate work or by both. The expert must be able to classify children and to prescribe activities. It is upon the contribution of these graduate students that we must base the scientific procedure of physical education specialization. This may be in the field of health coördination, character or personality coördination, or of prescribing activities to meet individual needs. It might have to do with testing procedures. The expert physical director must acquire the ability to determine the ultimate capacity of an individual as well as his present achievement. He must also be able to prescribe, within the boundaries set by pathological conditions discovered by the physician, an activity program which will raise the individual's achievement level to as near as possible his ultimate capacity level.

VII. THE TWO OR THREE SUBJECT TEACHER

Training must be given for the individual in a small school who is required to handle several subjects. A combination of subjects has already been pointed out on page 330. Inasmuch as the background academic educational subjects have been largely the same it will be possible to give special methods and techniques to equip teachers for this difficult position.

VIII. THE ELEMENTARY TEACHER

The elementary teacher should have sufficient training to teach activities in the grades from one to six inclusive. The following suggestive courses should provide training to meet this need:

A. A Comprehensive Cross-Section of Activities for Kindergarten and Elementary Grades or for Upper Elementary Grades—

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4 points—60 hours. This course should include a cross-section of stunts, tag and "it" games, dramatic plays, rhythmic actions and singing games, and the very simple athletic games. The latter are primarily for the upper elementary grades.

B. Child hygiene, 30 hours—2 points.

C. Nature and Function of Play, 30 hours—2 points.

D. Methods of Teaching Physical Education for Health and Character Results,⁵ 30 hours—2 points.

IX. SUMMARY

Preservice training should give the teacher a foundation upon which to build the in-service superstructure. Administrators and supervisors who are called upon to guide the in-service training of the rank and file must add to experience advanced training with clinical procedures in specialized fields.

PROBLEMS

1. The dean of a school of education has asked you, as the director of the department of physical education and health, to take in the department or keep in the department only persons of whom the faculty can give requisite recommendations at the time of graduation. Outline the procedure to meet this request.

2. The principal of a city normal school noticed that in the large city high schools there was considerable amount of specialized teaching, some in swimming, some in dancing, and some in athletics. He believes that specialization should only be allowed in these fields during the junior and senior years of a course leading to a bachelor of science. How would you advise him?

3. The state supervisor of physical education has requested your judgment on the amount and type of training needed for a teacher in the first and second grades of the elementary school. This training must be a part of a two-year state requirement. How would you advise him?

PRINCIPLES

1. The desirable outcomes of education are largely resident in leadership. Only those who have real promise of leadership should be admitted to teacher training institutions, and no one should be graduated from such an institution unless an unqualified recommendation as a teacher can be given him by the institution.

2. Some specialization may be allowed in the last two years of a four-year curriculum.

⁵ Emily D. Jameson, *Physical Education for the Preparation of General Elementary School Teachers*, Teachers College, Columbia University, New York, 1930.

3. Physical education teachers must have a thorough grounding in science as well as educational and academic background subjects.
4. Students should not be allowed to enter graduate work who have not completed undergraduate requirements in physical education.
5. The training of an expert to perform the full functions of the director of physical education will occupy approximately seven years.
6. All teachers in the elementary grades should have sufficient training to give them a comprehensive view of physical education.

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CHAPTER XVII

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CHAPTER XVIII

COÖPERATION WITH THE HOME

No department of the school, except the office of the principal, has so great a responsibility to keep in close contact with the home as has that of physical education. The relationship between the child and his parents constitutes an educational procedure that no institution can establish. In many schools the physical education and health program has caused serious misunderstanding in the home. Mutual understanding must be created if real progress is to be made. How can the routine administration of physical education and health coöperate with the home?

I. HIGH SCHOOLS

A. General Contacts. As physical education is a comparatively new subject it must be interpreted in terms parents can understand. That is the task of the director of physical education and health. Personal conferences should be encouraged. Group meetings of parents should be arranged. Parents should be urged to visit the department at specified times and should be made to feel a part of it. Organizations such as the Parent-Teacher Association should be asked to coöperate.

Frankwood E. Williams, medical director of the national committee for mental hygiene, says, "Mental hygiene boils down to two factors—children and parents."

B. Athletic Contacts. When the pupil remains after school for laboratory activities the home should be taken into consideration in such matters as the dinner hour, the assistance which the home expects of the child and the religion and customs of the home. Parents should be made to feel that their wishes will receive consideration by the school—as it is their school and the teacher is their paid employee. Activities which encourage children to be away from the home late in the evening should be carefully regulated. This, however, does not preclude the teacher attempting to change community opinion which is not in line with best educational procedure.

C. Physical Education Excuses. Close contact with the home would greatly decrease the number of excuses from activity. If the

teacher knows the activities are valuable to the children she should be able to convince the parents of this.

D. Classification. The home should be made to feel that to be admitted to the various types of examination is a privilege. A thorough understanding of the *why* will usually win the coöperation of the parents.

E. Medical Association. There should be a close relationship with individual and groups of medical men who should consider the physical educator an aid in health production and health guidance.

F. Leisure Time Activities. If the school is to be educational it must change its conduct in the ordinary run of life situations. It should be the center of recreation life in the community. Work at home on an interesting project started at school which the child really wants to accomplish is quite different from home work which the school requires.

II. ELEMENTARY SCHOOL

A. Out of School Activities. All laboratory scheduling should be known to the parents and their permission should be received before children participate in those activities which might interfere with the home customs. The including of the laboratory play hour in the regular schedule helps to solve this problem. The school yard should be the playground of the child.

B. Home Work.¹ Home work—long hours of home study—for the elementary school child and the junior high school child amounts to “legalized criminality.” It reminds us immediately of the old Greek philosopher who sent a note to the school teacher asking if the children might be given a day’s holiday so that they might acquire some education. Home study cannot be justified in the light of modern psychology, philosophy or physiology. The practice is apparently based upon a number of exploded theories.

One of these exploded theories is that home work is necessary for discipline to keep the child out of mischief—if it is disagreeable to the child it must be valuable discipline to make him do it. Another false basis for home study is the old Puritan theory that play is a waste of time, even actually immoral. Another false basis for home study is the assumption that “subjects of study” as they are given in the many schools are synonymous with education. If we want to continue our mad rush toward standardization, in-

¹ *Physical Education*, National Congress of Parents and Teachers, edited by Jay B. Nash, Washington, D. C., August, 1930.

creasing the home work of the present type would be one of the quick ways to attain it. Keeping the children in school for long hours, and making them study the same things out of school would certainly create a "billiard ball" civilization where every one would be just alike, except the numbers on them.

Home work puts an undue amount of strain upon the growing human organism. Biologically, the child is active and in this activity uses the big muscles of his body. The modern school emphasizes sitting with a tremendous strain upon the small muscles of the eye, ear and other mechanisms of the body. At the age of ten, the child needs to get six or seven hours of vigorous physical activity daily in order to insure a physical basis upon which life is to be built in his forties and fifties. In the after school hours there should be a program of *big-muscle activity* in running games rather than *small muscle activity in more study*.

Modern civilization must definitely set up a program to fight strain which comes from worry, fear and over-excitement, etc. Leading biologists of the type of Cannon of Harvard and Jennings of Johns Hopkins have shown that strains slow up, and in some instances, actually stop the nutritive process. The absence of strain is represented by the emotion of joy and happiness. Joy is a product of freedom and freedom is diametrically opposed to the theory of home study.

Education for leisure is opposed to the theory of home study. If children are to have opportunities to learn the fundamental skills necessary to enjoy leisure, they must have time in childhood in which to participate in such activities. Time should be free for music, for dramatics, for manual activities, for group games, for reading and the other arts. The ability to use leisure time profitably, the ability even to be happy with freedom *must be learned*. Ability to enjoy leisure is not learned by having long hours of the school days tied up in a process of "education by information." Education is not a product for obtaining information. Education is a process engaging in challenging tasks which lay the basis for more challenging tasks.

Educators are partly at fault in this matter because they feel they have not done their full duty unless they have given the child "plenty of home work." They have also been at fault because they feel that the facts they have to impart constitute education.

The home has been partly at fault because the home is criticizing the school in many instances, saying that the school does not give the children enough to keep them busy. The school, in their eyes,

is neglecting its duty and they are ready to accept the philosophy "back to the old form of discipline."

The community is partly responsible because it has not furnished a wide range of playground and recreational activities available to all the children so that the after school hours may be profitably employed.

C. Health Habits.^{2, 3} Most of the health habits are carried on in the home. Children eat and sleep there and the clothes they wear and the customs they acquire are largely dominated by the home. No plan of health conduct can disregard the home and it must have the coöperation of the home. The Pennsylvania Congress of Parents and Teachers issues a pamphlet "How Parents May Help." In brief it covers the following:⁴

1. Is your child clean every day when he is ready to go to school?
2. Are you helping your child to develop regular habits of elimination?
3. Does your child have a chair at home suited to his size?
4. Does your child's clothing fit comfortably?
5. Does your child play daily out of doors?
6. Do you try to provide safe places for him and his companions to play?
7. When your child has a severe "cold" do you keep him at home?
8. Is he so dressed that he may remove his outside wraps when in school?
9. Is he supplied with a clean handkerchief each day, or more than one when he has a cold?
10. Do you keep the living rooms at home from becoming overheated?
11. Does he sleep in a well ventilated room?
12. Does your child eat a wholesome breakfast?
13. If your child carries his lunch to school, do you prepare for him one hot food (cocoa, soup, vegetable or cereal) which may be carried in a thermos bottle or which may be reheated at school?
14. Are you helping your child to avoid eating candy and sweets too frequently, especially between meals?
15. Do you give your child milk and vegetables other than potatoes every day?
16. Does your child coast in a safe place?
17. Does he walk on the left side of the highway that he may face traffic, thus helping to protect himself?
18. Does he know the best way to extinguish flames if his clothing is afire?
19. Have you read carefully the report of your child's health examination made by the school physician?

² Richard A. Bolt, "The Pre-School Child as a Health Problem," *The Journal of Health and Physical Education*, Volume 1, Number 1, January, 1930, p. 12.

³ "The Summer Round-Up," *Tower Talk*, April, 1929.

⁴ *How Parents May Help*, Pennsylvania Congress of Parents and Teachers, 1930.

TABLE XLVII

SUMMARY OF ATTENDANCE—SCHOOL YEAR—LOS ANGELES SCHOOL PLAY YARDS

No. Games Played:	Elem.	Boys		Total	Elem.	Boys		Total	Grand Total
		Junior High	Senior High			Junior High	Senior High		
Attendance	1,332,717	458,019	58,748	1,849,484	732,564	28,144	57,983	838,691	2,688,175
Handball									
Handball	120,740	43,568	.....	164,308	18,270	755	.....	19,025	193,333
Volley Ball	11,474	5,164	.....	17,638	16,964	1,562	.....	18,526	36,164
Soccer Ball	10,370	2,121	.....	12,491	.....	.....	.....	.....	12,491
Basketball	17,216	9,405	.....	26,681	3,040	869	.....	3,909	30,590
Baseball	36,762	9,932	.....	46,694	21,149	1,140	.....	22,289	68,983
Sets Tennis	40,360	11,522	.....	51,882	24,251	2,709	.....	26,960	78,842
Grand Totals for 1927-28									
Attendance	1,536,398	502,593	114,094	216,308	845,655	33,753	68,494	947,902	3,100,987
No. Games Played:									
Handball									
Handball	132,134	46,421	8,858	187,414	18,270	755	.....	19,025	206,439
Volley Ball	13,018	6,821	349	19,657	18,030	1,695	254	19,979	39,636
Baseball	38,878	11,521	1,569	56,979	21,149	1,140	.....	22,289	79,268
Tennis Sets	61,203	18,195	13,169	92,567	32,995	3,500	3,238	39,733	132,300
Soccer	10,370	2,121	.....	12,491	.....	.....	.....	.....	12,491
Basketball	17,216	9,405	.....	26,681	3,040	869	.....	3,909	30,590
Play Ball	7,651	1,065	1,688	10,404	3,800	119	164	3,083	13,487
Paddle Tennis	15,250	3,685	3,743	22,768	4,751	694	751	6,196	28,874
Ping Pong	10,083	4,876	5,170	20,129	2,844	716	402	2,942	23,071
Horseshoes	33,617	5,254	8,728	37,599	.....	.....	.....	.....	37,599
Play Golf	7,659	2,384	1,271	11,314	.....	.....	.....	.....	11,314
Checkers	45,587	6,917	7,769	60,273	8,721	1,098	1,097	11,726	71,999
Croquet	16,061	5,006	1,979	23,066	6,532	422	338	7,312	30,378
Ring Toss .....	.....	.....	.....	.....	7,046	117	1,245	8,408	8,408
Attendance at									
Special Activities:									
Handcraft	16,743	1,449	.....	18,192	14,997	939	.....	15,936	34,128
Showers	8,120	14,083	10,245	32,448	.....	.....	.....	.....	32,448
Socials or Dancing	3,117	118	.....	3,235	2,481	303	.....	2,784	6,019
Clubs	1,212	563	.....	1,775	1,329	8	.....	1,337	3,112
Hiking	857	24	14	895	333	31	.....	364	1,259
Story Hour .....	.....	.....	.....	.....	13,835	919	42	13,796	13,796
Folk Games .....	.....	.....	.....	.....	6,051	487	18	6,576	6,576

TABLE XLVIII

SUMMARY OF ATTENDANCE—SUMMER MONTHS—LOS ANGELES SCHOOL PLAYGROUNDS

	Boys			Girls			Grand Total
	Elem.	Junior High	Senior High	Total	Junior High	Senior High	Total
Attendance:							
A.M.	31,515	1,858	413	33,786	14,938	1,129	16,363
P.M.	132,589	29,551	30,347	192,987	65,433	3,425	73,958
Twilight	29,407	11,418	17,689	58,414	9,900	3,614	14,383
Spectators	10,270	1,747	6,397	18,414	2,830	1,491	4,507
Totals	203,681	44,574	55,246	303,601	93,091	10,511	109,211
							412,812
No. Games Played:							
Handball	11,394	2,853	8,858	23,106	.....	.....	23,106
Volley Ball	1,544	657	349	2,019	1,066	254	1,453
Play Ball	7,051	1,065	1,688	10,404	2,800	164	3,083
Baseball	2,116	1,589	1,569	10,285	.....	.....	10,285
Tennis (sets)	20,843	6,673	13,169	40,685	8,744	3,238	12,773
Paddle Tennis	15,250	3,685	3,734	22,758	4,751	694	6,196
Ping Pong	10,083	4,876	5,170	20,129	2,824	402	2,942
Horseshoes	33,617	5,254	8,728	37,599	.....	.....	37,599
Play Golf	7,659	2,384	1,271	11,314	.....	.....	11,314
Checkers	45,887	6,917	7,769	60,273	8,721	1,097	11,726
Croquet	16,081	5,006	1,979	23,066	6,552	338	7,312
Ring Toss .....	.....	.....	.....	.....	7,046	1,245	8,408
Attendance at							
Special Activities:							
Handcraft	16,743	1,449	.....	18,912	14,997	.....	15,936
Showers	8,120	14,083	10,245	32,448	.....	.....	32,448
Socials or Dancing	3,117	118	.....	3,255	2,481	.....	2,784
Clubs	1,212	563	.....	1,775	1,329	.....	1,337
Hiking	857	24	14	895	333	31	364
Story Hour	13,835	42	13,796
Folk Games	6,051	38	6,576

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20. Is there any condition reported which has not been given attention?
21. Are there any things you can do or measures you can use to protect your child from these handicaps?
22. Do you teach your child to respect regulations for quarantine?
23. Have you protected your child from diphtheria by means of the toxin-antitoxin treatment?
24. Has your child developed the habit of washing his hands before eating and after visiting the toilet?
25. Do you provide your child with a cup and towel for his own use in the home?
26. Is your child gaining in self-control?
27. Is he learning to take responsibility in his preparations for school?
28. Does he get his required hours of sleep?

D. **The Summer Round-up.**^{5, 6} This plan was instituted by the National Congress of Parents and Teachers in 1925 on a nationwide basis. The work has so gained that in 1929 it involved three thousand eight hundred and forty-four parent-teacher units in forty-five states. Steps to carry this out are here given:⁷

1. *Summer Round-up Chairman.* A chairman should be appointed who shall hold this position throughout the campaign.

2. *Official Registration Blank.* This blank shall be filled out and forwarded to the state round-up chairman, or the state president. If such a blank has not been received by the local unit, write to the state chairman for one.

3. *Survey.* A survey should be made to ascertain what health agencies or organizations are at work in the community and what is being accomplished by each one, with a view to securing their interest and cooperation in the Summer Round-up.

4. *A Meeting of the Executive Committee.* A meeting of the executive committee of the local unit should be called by the president for the purpose of discussing the campaign. The school superintendent or principal (or both), the school nurse, the kindergarten or first-grade teacher, the secretaries of the county medical and dental associations, and representatives of all civic organizations should be invited to attend the meeting, for the Round-up is a cooperative project of the parent-teacher association.

⁵ "The Way to Success," *The Summer Round-Up of the Children*, The National Congress of Parents and Teachers, Philadelphia, Pa.

⁶ "Is It Well With the Child?" *The Summer Round-Up of the Children*, The National Congress of Parents and Teachers, Philadelphia, Pa.

⁷ "Plan of Procedure," *The Summer Round-Up of the Children*, The National Congress of Parents and Teachers, Philadelphia, Pa.

5. *Members of the Round-up Committee.* Members should be appointed who, together with the chairman, serve as the general campaign committee.

6. *Sub-chairmen.* These individuals should be appointed to take charge of particular details of work. The following are suggested: publicity—visiting—transportation and follow-up.

7. *Summer Round-up Should Be Presented at a Regular Parent-Teacher Meeting.* An invitation should be extended to the general public through the press, pulpits, clubs, etc. The following suggestions are given for the program:

a. Presentation of program of the summer round-up work by the general chairman.

b. Ten minute talk by the school superintendent on "What It Means to the School to Have Health Scholars."

c. A ten minute talk by the chairman of the local health council (provided the community has organized one), a representative of the medical society or the school doctor, on "What It Means to a Child to Go to School in Perfect Health."

8. *Preparation for the Spring Health Examination.* The organization and arrangement for physicians and dentists to examine the children should be made by a joint council of representatives from the local parent-teacher association, the local medical society, the local dental society, the health department or the school health service of the public schools, the school superintendent or his representative and such other agencies as may be deemed advisable—public health nurse, Red Cross, etc.

This group should determine how the examinations shall be made; whether by private practitioners paid by the health department or by private physicians, gratis, as a promotion measure to emphasize the need for periodic health examinations or by physicians regularly employed by the health department. The date for the spring examination should be decided upon in consultation with this joint council.

Names of the children who will enter school in the Fall should be secured through the school, a block-to-block canvass or other method. The parents of these children should be visited and given a full explanation of the summer round-up, told the time and place for the spring examination, and asked whether or not they will take their children or wish to have transportation provided.

9. *The Spring Examination.* All preparations for the examination should be made in consultation and coöperation with the joint health council.

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10. *Follow-up Committee.* This committee should visit the homes during the summer months and urge parents of children with defects to seek the family physician for advice and treatment. When cases of financial inability are discovered, arrangements should be made for assistance from the Red Cross and other social agencies.

11. *The Fall Check-up.* This is necessary to determine the number of children who have had the advice of the family physician and who have had any defects corrected. It may be done in connection with the regular school examinations which take place during the opening months of school.

12. *The Official Report Blank.* This should be filled out with the data suggested and forwarded to the National Campaign Office, 5517 Germantown Avenue, Philadelphia, Pa., before November 1st. Send also a brief account of how the work was accomplished.

13. *Report to Local Unit.* A report of the round-up should also be made at the October or November meeting of the local association so that the members may understand what has been accomplished.

In the plan just given the department of physical education and health should give active coöperation. Community coöperation does not just happen. Some one must have the vision to promote it.

III. SUMMARY

Parents must not only be taken into the education plan but they must be taken into the planning. School administrators and teachers are public servants—agents of the community in the great democratic experiment of universal education. The home and school forces must be coördinated in this gigantic undertaking.

PROBLEMS

1. The local Parent-Teachers' Association has requested you, as the director of physical education and health of the city, to set up the machinery for a complete summer health round-up of all children entering the school for the first time this coming fall. What procedure would you outline for them?

2. The superintendent of schools, in a city of 80,000, feels that a summer camp should be organized under the auspices of the board of education, to be self-sustaining and to be operated during the summer months. What procedure would you recommend?

3. The High School Principals' Association has sent a request to the

superintendent of schools asking that the department of physical education and health establish relationships with the parents whereby they may be kept informed of all activities in which the boys and girls participate under the auspices of the school outside of the regular classes of the legal school day. What would you recommend?

PRINCIPLES

1. Special effort should be made on the part of the school officials to keep in close contact with the parents.
2. The parents should understand thoroughly the hours and the conditions under which children participate in activities beyond the official school day.
3. Bulletins should be occasionally issued to the parents setting forth the policies of the school in the conduct of athletics, health procedures, playgrounds, evening activities.
4. The elementary school and the home school coöperate in the health program of the preschool child.

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CHAPTER XIX

HEALTH COÖRDINATION

Health is one of the desirable outcomes of education and as such all the activities of the school and community should be correlated in order to achieve that end. We need a coördinator whose task will be to see to it that all the social objectives, i.e., health, vocational efficiency, worthy use of leisure time, ethical character, etc., are approximated by a conscious organized control of the total environment and the total activity program of the school. It might be well to set these up for all educational objectives (page 31). Correlation is a very difficult administrative task. Its responsibility rests with the superintendent of schools and all delegation should be on the administrative level. The health coördinator should be an administrative aid to the superintendent. The figures on page 445 indicate their relationships.^{1, 2, 3, 4}

I. PERSONNEL FOR HEALTH COÖRDINATION⁵

With the present school organization the administration of the health program should be vested with the director of physical education and health. In communities of sufficient size to justify more than one director, an assistant director of the health and development program should be included in the general administrative staff. The head of this department should be first and foremost an educator. Training for the position would require approximately seven years—equivalent to the requirements of a degree of Ph.D. If advanced courses in organization and administration of health coördination and advanced physiology and organic examinations or efficiency tests with clinical practice are included in the

¹ I. V. Hescocck, "The Organization and Budget of a Health Department in a City of 20,000 Population," reprinted from the *American Journal of Public Health*, March, 1924.

² "Administrative Policies in Health and Physical Education," reprinted from the *American Physical Education Review*, May, 1929.

³ Clark W. Hetherington, "The Relation of Physical Education to Health," reprinted from the *Journal of the Outdoor Life*, August, 1924.

⁴ *Health Education*, prepared under the direction of Thomas D. Wood, 525 West 120th Street, New York City, 1930.

⁵ Many of the suggestions for this plan have been secured from Professor Marguerite E. Hussey, New York University, New York City.

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[illegible]

Examination Record

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curriculum an educator will be adequately equipped to administer this total program.⁶ A physician, full or part time, may be employed to make the expert diagnosis. A physician who is also an educator might head the entire department.

The supervisory staff should consist of individuals who are prepared to supervise both the physical education activities and the total health program. In very large communities a division of responsibilities between physical education and the health programs may be advisable. The general trend is toward general supervision and not separate supervision for each activity or program. Supervision that is integrated makes for general unification of the whole school program to the end that the educative objectives may be more fully realized. Personnel should be thought of in terms of protection and guidance. The personnel in the protective program consists of the physicians, regular and specialized, dentists, dental hygienists, physical therapists and nurses. The highest type of service is usually obtained by hiring as part-time staff members practicing physicians who have hospital connections and professional standing in the community. This holds equally true for the dentists. The physical therapists and nurses should be full time.

The personnel in the educative or guidance program is made up of the room teachers, the physical education specialists and other special teachers. All teachers have a function in the educative program but the teacher of physical education has an unique responsibility. The activities which he organizes are of more widespread interest than any other one activity and thus afford an objective for keeping in condition (page 106). These activities are the developmental source of health. More incidents relative to health occur in them than in any other activities, thus making health problems real to the individual.

II. EDUCATIONAL PREPARATION

The director of physical education and health should have attained the standard of a Ph.D. degree, having specialized in the fields of physical education and health. The assistant director of health, if there is one, should have an A.M. degree—a Ph.D. degree is preferred, however—having specialized in the health program with a thorough understanding of physical education. The supervisors should have special training in the fields of physical and health education. The physicians and dentists should have a

⁶ *Interpretations of Physical Education*, Vol. II, A. S. Barnes & Co., New York, 1931.

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* Terms following each heading, indicating conditions which may be present, facilitate the recording of findings. It is necessary *only to check the term which describes most fully the present condition found.*

Physical Inspection Card

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medical training including courses in preventive medicine and in education. The health coördinators in the schools should have a B.S. degree in health education. The physical therapists should have a B.S. degree in their special field, and the nurses should be registered and have had at least a one year college course in public health. Teachers handling handicapped children should have special training in the field in which they are working. All teachers should have some training in health protection and the methods of teaching health.

OAKLAND PUBLIC SCHOOLS

PHYSICIAN'S RECOMMENDATION TO THE DEPARTMENT OF PHYSICAL EDUCATION

.....School
(To be mailed to.....Director of
Physical Education, for { Boys
 Girls

This certifies that I have carefully examined.....
.....and that, in my opinion, because of
.....he/she
(Diagnosis)

should be assigned to the type of physical education which I have checked below:
1. Regular Physical Education. This includes strenuous activity of the following types:

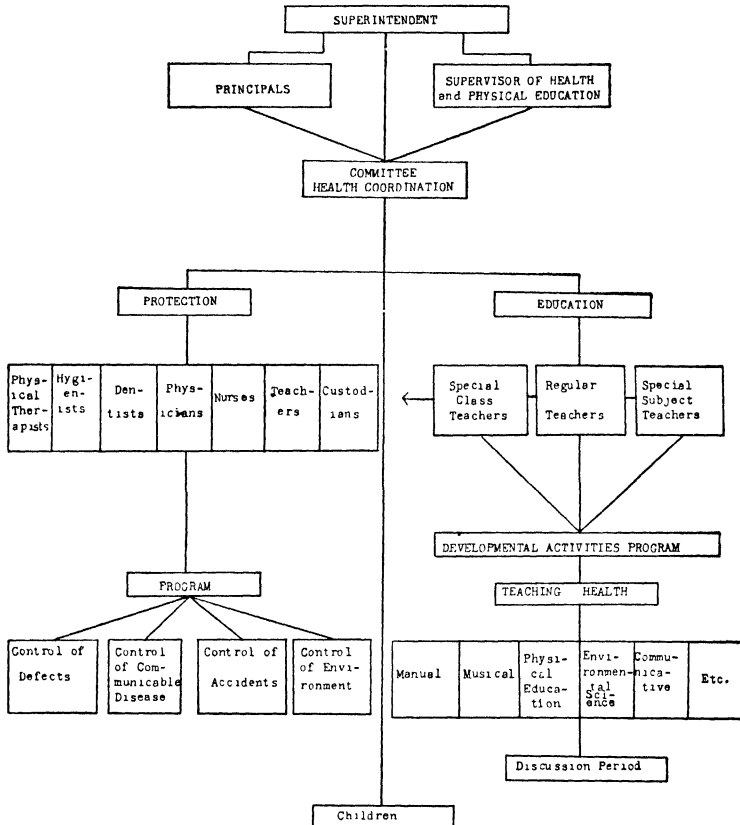
Dancing, gymnastics, stunts, apparatus work, sports, including:

<i>Boys</i>	<i>Girls</i>
Touch tackle	Hockey
Baseball	Baseball
Basketball	Basketball
Soccer	Speedball
Track	Volleyball

2. Restricted Physical Education—
Dancing, games, gymnastics, modified to eliminate any activity of a strenuous nature.
3. Corrective Physical Education for:
Poor muscle tone.
Poor posture, fallen arches, eliminative disturbances (check conditions needing correction).
4. Rest Physical Education.
Complete bed rest for any who are unable to profit by exercises of any kind.
In addition, I should like to make special recommendations, as follows:.....
.....
.....

Signed, M. D.
Dated19...

NOTE: The school authorities seek the advice and coöperation of physicians and parents in overcoming the growth handicaps of school children. The information given by the physician will be considered confidential.

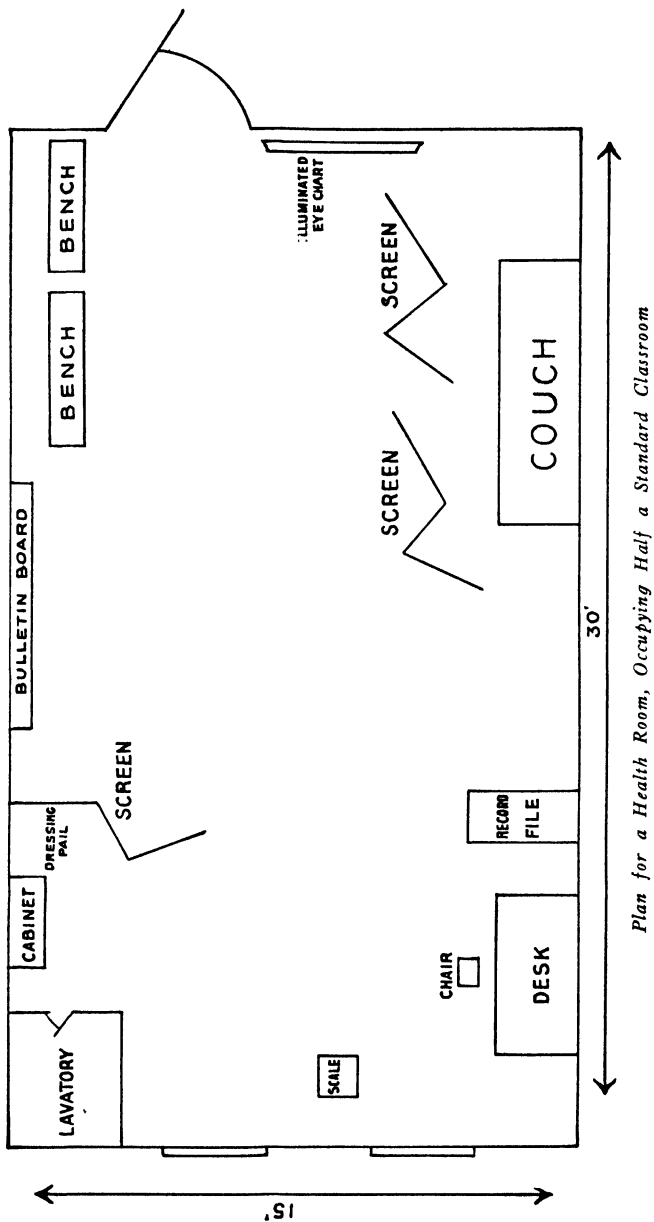


Plan for Health Coordination Under a Health Committee

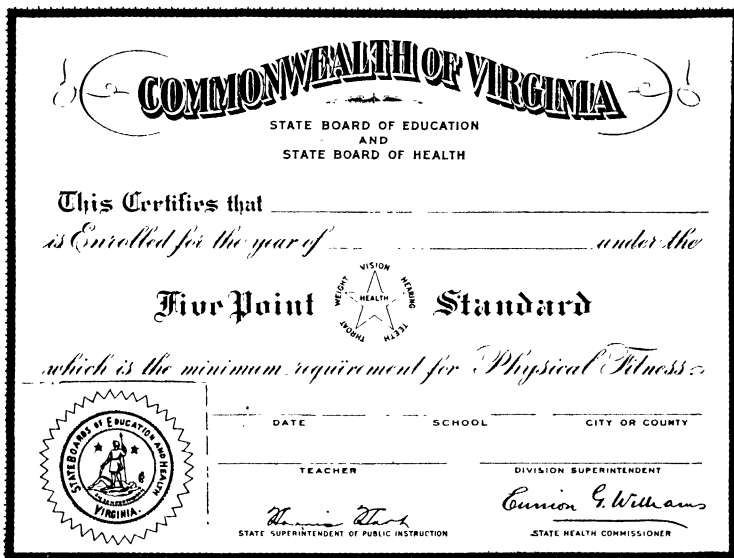
III. THE FUNCTIONS IN ADMINISTERING THE HEALTH PROGRAM

There are three functions in the administration of the health education program in the school, namely, protection from drains and strains, direction of developmental activities for organic and emotional power, and teaching health (page 106).

A. Protection from Drains and Strains. The protective program aims to remove all drains and strains from the individual so that growth and development may proceed harmoniously. It is therefore concerned with the control of communicable diseases, protection from accidents and injuries, control of growth defects



Plan for a Health Room, Occupying Half a Standard Classroom



Five Point Standard Award for Physical Fitness Used in Virginia

and of environmental influences that may handicap the child. The procedure for determining the presence of strains and drains has been set up in chapter XI. The director of physical education should recognize the presence of gross body defects and functional disorders (page 314) but diagnosis and treatment are tasks for the specialists. The following suggests the items concerning the child about which the health coordinator should know something in order to intelligently guide the administrative procedures of specialists:⁷

1. Constitution and glands⁸
2. Metabolism^{9, 10}
3. Mental and emotional status^{11, 12, 13}

⁷ *Nature and Scope of Examinations, Ibid.*

⁸ Thomas D. Wood and Hugh Grant Rowell, *Health Supervision and Medical Inspection of Schools*, W. B. Saunders Co., Philadelphia, 1928, chapter X, pp. 260-268.

⁹ James Kerr, *The Fundamentals of School Health*, The Macmillan Co., New York, 1927, chapter V.

¹⁰ *Physical Measures of Growth and Nutrition*, American Child Health Association, School Health Research Monograph Number 11, New York City, 1929.

¹¹ R. P. Truitt, *Mental Hygiene and the Public Schools*, National Committee for Mental Hygiene, 1927.

¹² Jessie Taft, *Mental Hygiene Problems of Normal Adolescence*, National Committee for Mental Hygiene, 1921.

¹³ Elizabeth Dexter, *Treatment of the Child Through the School Environment*, National Committee for Mental Hygiene, 1928.

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4. Neurological status ¹⁴
5. Orthopedic ¹⁵
6. General surgical conditions ¹⁶
7. Circulatory deviations ^{17, 18}
8. Lungs ^{19, 20, 21}
9. Skin ²²
10. Eye ^{23, 24}
11. Nose and throat ²⁵
12. Dental conditions ²⁶
13. Female genito-urinary
14. Ears ^{27, 28}
15. Accident prevention ^{29, 30, 31}
16. Control of communicable diseases ³²
17. School room ventilation ^{33, 34}

¹⁴ John Frederick Dashiell, *Fundamentals of Objective Psychology*, Houghton Mifflin Co., New York, 1928.

¹⁵ Charles L. Lowman, C. Colestock, and H. Cooper, *Corrective Physical Education for Groups*, A. S. Barnes and Co., New York, 1928.

¹⁶ "Nature and Scope of Examinations," *op. cit.*

¹⁷ James Frederick Rogers, *Physical Defects of School Children*, Department of the Interior, Washington, D. C., 1929.

¹⁸ Thomas D. Wood, and Hugh Grant Rowell, *op. cit.*, chapter XI.

¹⁹ James Frederick Rogers, *op. cit.*

²⁰ James Frederick Rogers, *Schools and Classes for Delicate Children*, Department of the Interior, Washington, D. C., 1930.

²¹ *Tuberculosis in Its Relation to Public Health*, National Tuberculosis Association, 1928.

²² W. R. Morrison and L. B. Chenoweth, *Physical Diagnosis*, Lea and Febiger, Philadelphia, 1928, p. 147.

²³ *Conserving the Sight of School Children*, National Committee for the Prevention of Blindness, New York City, 1925.

²⁴ *Sight-Saving Classes in School Systems*, National Society for the Prevention of Blindness.

²⁵ James Frederick Rogers, *Physical Defects of School Children*, *op. cit.*

²⁶ James Frederick Rogers, *Better Teeth*, Department of the Interior, Washington, D. C., 1927.

²⁷ *The Hard-of-Hearing Child*, Department of the Interior, Washington, D. C., July, 1927.

²⁸ *The Deafened School Child*, Joint Committee on Health Problems in Education, National Education Association, 1928.

²⁹ E. G. Payne, *A Program of Education in Accident Prevention*, Department of the Interior, Washington, D. C., 1922.

³⁰ *Safety Education in the Rural School*, National Safety Council, 1929, p. 38.

³¹ *Safety Teaching in the Modern School*, National Safety Council.

³² Thomas D. Wood and Hugh Grant Rowell, *Health Through Prevention and Control of Disease*, World Book Co., Yonkers-on-Hudson, New York, 1926.

³³ T. J. Duffield, *School Ventilation, Its Effect on the Health of the Pupil*, American Public Health Association, 1927.

³⁴ *Ventilation of School Buildings*, Joint Committee on Health Problems in Education, 1925.

18. Schoolroom lighting ^{35, 36, 37}
19. Sanitation ³⁸
20. Rest and sleep ^{39, 40, 41}
21. Activity ⁴²

The staff concerned with health protection should consist of part-time physicians, dentists, psychiatrists, eye, ear and nose specialists, orthopædic specialists, full-time nurses, hygienists, physical therapists and teachers. The follow-up should be done by the nurse and in some instances by the teacher. Special classes should be organized in the regular schools.⁴³ These may consist of orthopædic, sight conservation, hard-of-hearing, mental, subnormal and genius group classes; also classes for the maladjusted child and open-air classes for nutritional and tubercular cases.

THOMAS JEFFERSON HIGH SCHOOL

DEAR SIR OR (MADAM):—

Your son was notified to submit evidence of a thorough medical examination, including the following items: teeth, eyes, posture, nutrition, nose and throat, feet, cleanliness, skin, hair, heart and lungs, height and weight. Up to the present time he has failed to comply with this school requirement.

Please be advised that unless this urgent matter is attended to at once, your son's school work and record will be seriously affected.

Your son is to return this letter with your signature below.

Very truly yours,

.....
Principal

THE MATTER REFERRED TO ABOVE WILL BE ATTENDED TO AS REQUIRED

.....
Signature of Parent

The spread of communicable diseases should be controlled by inspection, exclusion, room isolation and immunization. The con-

³⁵ Winifred Hathaway, *The Well-Lighted Schoolhouse—A Coöperative Effort*, National Society for the Prevention of Blindness, 1930.

³⁶ *Lighting the Schoolroom*, National Society for the Prevention of Blindness.

³⁷ Winifred Hathaway, *Lighting the Home for Health and Happiness*, National Society for the Prevention of Blindness, 1929.

³⁸ James Frederick Rogers, *Sanitation of Schools*, Department of the Interior, Washington, D. C., March, 1930.

³⁹ N. L. Reynolds, *Rest and Sleep. Why We Need Them*, National Tuberculosis Association, 1930.

⁴⁰ Harriet Wedgwood, *Sleep*, Department of the Interior, Washington, D. C., 1923.

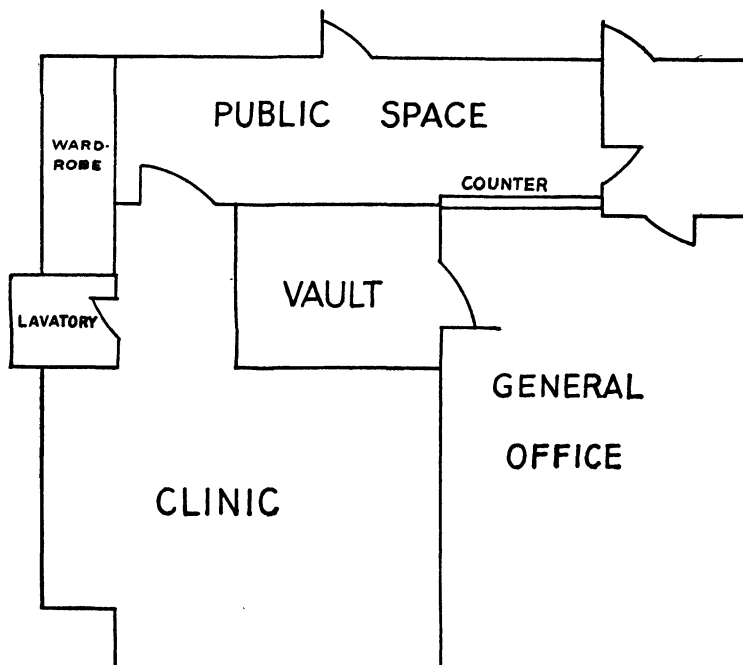
⁴¹ *Why Sleep? Sleep Helps Children Grow*. U. S. Children's Bureau, 1929.

⁴² See chapter IV.

⁴³ Individuals who vary widely from the normal present so many problems that they cannot be dealt with in ordinary school conditions.

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trol of accidents is a matter of the elimination of hazards in and about the building and facilities and the rendering of first aid. The environment is controlled by means of sanitary inspection of the whole plant, and of adequate facilities and equipment.



Walker & Norwick, Architects, Dayton, Ohio.

Clinic Plans, Consolidated School, Osborn, Ohio

B. Developing Power for Health. The health program, including such developmental activities as will building, organic power, strength and skill of the mentimotor mechanism and power for interpretive thinking. The functioning of these mechanisms must be so integrated as to bring about that condition called health and that system of responses called character so that adjustments to the changing social world are adequate for complete living. This means a curriculum made up of units of vigorous developmental activity that are centered in the individual interests of the age levels.

C. Teaching Health. Teaching health should be the responsibility of all of the school staff. In the elementary grades it should

SEATING SURVEY BLANK FOR ELEMENTARY SCHOOLS

.....School

Date for Making Survey: Fifth week of term.....

Date for Returning Blank: Sixth week of term.....

Plan: *Each teacher* shall record conditions in *her* room in accordance with outline below: (Please use numerals)

1. Grade
2. Number of adjustable seats.....
3. Number of non-adjustable seats.....
4. Number of chairs and tables.....
5. Number of possible ranges of adjustability.....
6. Number of pupils with feet off floor.....
(Children sit "pushed back" in seat. Pass down aisles, look at each child individually and count number who cannot rest feet flat on floor with lower leg at right angle to floor.)
7. Number of pupils with knees touching under-part of desk.....
(Children sit "pushed back" in seat, feet flat on floor, lower leg at right angle to floor. Look at each child individually and count number whose knees touch under-part of desk. There should be clearance sufficient to pass the hand of the examiner between knees and desk.)
8. Number of desks too high.....
(Children take "writing position," i.e., sit pushed back in seat, bending forward slightly *from the hips, back straight* and forearms resting on desk. Count number who hunch shoulders in the position [desk too high].)
9. Number of desks too low.....
(Take "writing position"—count number who must curve back in order to rest forearms on desk.)
10. Number of seats too low.....
(i.e., pupil forced to sit with lower leg cramped back under seat instead of at right angle to floor.)
11. Number of seats too deep.....
(Causing pressure against large blood vessels under knee or causing child to slide forward in seat.)
12. Number of seat backs so low that they *hook* shoulder blades.....
13. Number of seats or desks improperly adjusted so that seat or desk is not level....
14. Number of desks spaced so far from seats that child must sit on edge of seat to assume writing position.....
15. Number of desks spaced so close to seats that child is wedged between back of seat and front of desk.....
16. Number of seats or desks in need of repair.....
17. Reason for non-adjustment of seats by date of this survey.....
18. Additional comments

Signed

Teacher Making Survey

Signed

Principal

be taught by the room teacher in relation to school situations and incidents and not by a special teacher of health. In departmentalized schools all teachers have a contribution to make to the teaching program but the discussion period for the solving of the health problems of the group can be a part of the physical education time allotment (page 272). The following principles govern the teaching of health:⁴⁴

⁴⁴ Furnished by Professor Marguerete E. Hussey, New York University.

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1. All activities organized to teach health should deal with the idea of keeping fit and should center around the dynamic interests of child life.
2. The units of activity should be so integrated as to develop health practices, interests and knowledge.
3. The health units should be of such a type as to be considered worth while by the child—the child should want to solve the health problem.
4. The health teaching unit should be selected from actual incidents and experiences of the children and the selection, skillfully guided by the teachers.
5. Each health lesson should have definite educational significance.

D. Coöperation Is Necessary. Health promotion is a co-operative task and as such is an administrative task⁴⁵ which may or may not be delegated by the superintendent and principal. This coöperation involves administrative officials, teachers, specialists in children's clinics, board of health, family physicians, custodians, parents and the general citizenry. The success of the program involves the health of the teacher, child and parent, hence it is of utmost importance in the educative process.

PROBLEMS

1. The principal of a high school has requested you, as the director of physical education and health, to organize a committee and suggest a program for a five-year health-coördinating plan within his school. Outline this procedure.
2. The policy of the superintendent is to establish health coördinating committees in all schools. The specialists in physical education have had little training in health methods. What would you recommend for the set-up of these committees?
3. The principal in an elementary school has indicated to you, his special teacher in physical education and health, that a health program within the school should show some objective results, either in a reduction of illness, in general efficiency, or in increased attendance. How would you organize a study to test this program in accordance with his suggestion?

PRINCIPLES

1. All the possible health contributions of the school should be coördinated by a central plan.
2. The health coördinator is essentially an administrative officer.
3. The health coördinator should have special training in the fields of health teaching and health protection.

⁴⁵ "Nature and Scope of Examinations," *op. cit.*

4. The person in the school with the best background and training should be selected to handle the task of health coordinator.
5. The director of physical education should have the training to act in the capacity of a health coordinator.

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CHAPTER XX

PROFESSIONAL PROMOTION OF PHYSICAL EDUCATION

Professional promotion refers to the process of presenting the service possibilities of physical education to the citizenry. It is not advertising but publicity in the broadest sense. It interprets processes and objectives. Professional promotion is especially needed in physical education because the tax-payer of the present generation is exposed to a type of physical education different from that which, in the main, he thoroughly hated. After a lapse of thirty years he is not convinced that there has been any change. This is well illustrated by the common remarks, "Physical torture," "I never did like calisthenics," and "Too much time is put on athletics." Recently a wealthy man withdrew a twenty-five thousand dollar gift to his university because it was to be applied to physical education equipment. He said he hated physical education for his four years of high school and four years of college and that he would not give his money to torture other people. It was with great effort that he was persuaded that physical education had changed.

I. THE PROFESSION HAS MUCH TO LIVE DOWN

A. Systematists. Many people think of physical education to-day in terms of systems. They remember the bitter controversies of a generation ago. They realize that as soon as activities become systematized they are likely to conform to the letter rather than the spirit of the founder. America is developing a physical education according to its needs and it clings to no one system. The general public must be made to know this.

B. Physical Culturists. We have to live down the implications of the words *physical culture*. Its relationship to fads and fancies, to beauty culture and to mere muscle growth size is all too obvious. We have passed beyond this but the public must be made to see it.

C. Physical Trainers. We must live down the influences of mere physical training—the training which is given to dogs and

horses in preparation for races. The public feels that college athletes are trained in the same way—sometimes they are. We have to a great extent passed beyond this stage but the public must be made to realize it.

D. Faddists. Physical education has been the happy hunting ground of too many faddists—health guaranteed formulas, a system of exercise that constitutes a power to cure all the ills in the world; a system of appeal to health superstitions which have long since been exploded. Physical education has passed beyond this but the public does not know it.

E. Scarf Wavers. We have also had to live down the *scarf wavers* and the balloon tossers in our types of dancing. Leaders have gone to the extreme in emphasizing what they called *expression*. It reminded one of the eloquent rendering of *Annabelle Lee*. Our public schools have gone far beyond this but the public must be made to see it.

F. Athletic Traditions. Athletic traditions which have been handed down from the colleges to the high schools have been a definite handicap. The public has seen bad feeling in games, and fights and rioting in street cars, on the streets and in theaters, after athletic contests. It may have sympathized with one side or another but deep down in the hearts of the public was the knowledge that such results were not educational and were not worthy of financial support. Our high school athletics have advanced beyond this point in most places. Contests are being regulated by state and city officials, offending schools are being disciplined, but the public must know this.

G. The Muscle Men. Physical education is having to live down the reputation of the muscle men. We still hear this mentioned in a joking way but many serious things are said in jest. Unless physical education divorces itself from the mere building of muscles it will never be accepted educationally. The very words *big muscle activities*, as has been pointed out, have been a handicap. Physical education has passed beyond mere muscle building but the public must be made to see it.

H. Limited Professional Training. Too often in the past men and women have been undertrained for the physical education profession. One or two summers of special work has constituted their professional training. The men have stepped into positions because they could coach football, swim or possibly because they had been army captains. In most states four or five years of

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professional training is required, as it is in other subjects, but the public does not know this.

I. Bad Companions. Physical education has had many bad companions, and associating with them has spotted its fingers. It has been tied up in the minds of the public with commercial sports; baseball, football, boxing, and wrestling. The public has not been quite sure that these sports have been on the square. In the early days gambling, drinking and foul talk were rampant at these games. Physical education, because of its recreational content, has somehow been associated with pool rooms, billiard halls and bowling alleys. These activities, good in themselves, have been in a bad environment. Physical education has set new ideals but the public does not know it.

J. Disciplinarians. Physical education has been tied up with the army type of discipline and drill. The public has, to a large extent, lost faith in this type of discipline. So has physical education, but the public is still unaware of it.

K. Physical Education Has Been a Stepping Stone. Another handicap is that too many people have used physical education as a stepping stone to medicine, law, business, etc., to help them over the snowball diet years when they were getting started. This could not help the profession. It is largely past, but the public does not know it.

L. Time Servers. A great many of the physical education people have been time servers. They have been the nine to two-forty-five o'clock type. In addition to serving time for the school, they have served time on a playground after school or with evening community centers and boy club groups—many men may be holding two, three or four jobs, serving time everywhere, but doing none well. The profession has taken a stand against this but the public does not know it.

II. PHYSICAL EDUCATOR MUST FIT IN

From many places the word comes that physical educators do not fit in with the faculty. They fail to attend faculty meetings. Their program disrupts the rest of the school. They are noisy. They ask concessions. They ally themselves with the students, sometimes against the faculty. They cause complaints from the home because children are kept after school. They violate health procedures rather than encourage them. Often these are all too true. If physical education is to be promoted and the proper

understanding maintained, some of the following principles must be carried out:

A. The Physical Education Staff Must Coöperate. This means that the individuals must fit into group plans. If the faculty has a special lunch room the physical education staff should eat with them. This makes possible friendly relationships. The staff should be interested in and attend the social affairs of the school. One physical director, to my knowledge, alienated himself from the faculty because he objected to a small semester fee for flowers which were to be sent as school courtesies. The physical education staff should feel an obligation to be at school functions which are not specifically promoted by them. The school should be seen as a unit. Unless the physical education staff looks upon it as such the work becomes departmentalized to the disadvantage of physical education.

B. The Physical Education Staff Must Not Ask Concessions. Too often the physical education staff has asked concessions in time, additional salary and specific certification in the absence of required professional training. They have asked for the privilege of not attending meetings and not serving on committees. All this has militated against the profession.

C. The Physical Education Staff Must Interpret Physical Education. Physical education people must take every opportunity to interpret the profession to administrators and teachers. This must be done more by example and work than by words. Time must be allowed for just friendly contact. The administrator always dodges the person who takes every opportunity, in season and out, to say, "Oh, have you seen the magazine article?" "Have you read this?" or "Have you heard about my latest plans?" Administrators would like to meet staff members occasionally without the feeling that they are being cultivated.

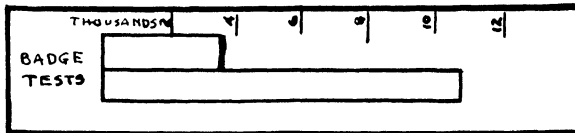
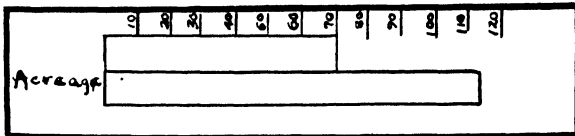
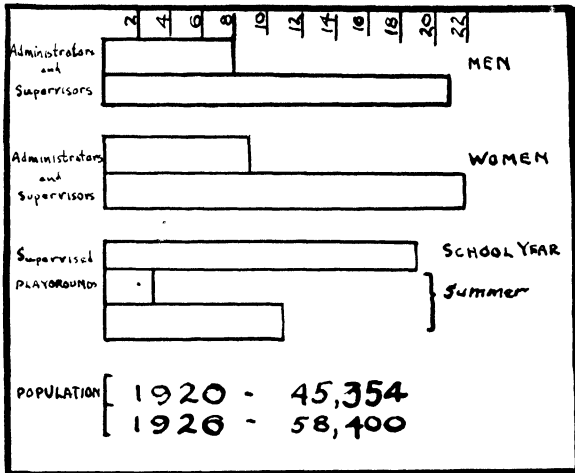
D. Community Contacts. The physical education staff must keep in close contact with cross-section community groups. A special effort must be made to meet a few of the leading doctors and then possibly the county medical society. The physical director must be able to talk to them in their language. If he cannot do this he has no place in the profession. No group of teachers should keep as close to the parents as the physical education staff. There are many intimate problems which concern both groups such as, the dressing for gymnasium classes, the shower bath, health habits, the follow-up or removal of defects and after school athletics. None of this can be done unless there is a close contact. Time

servers cannot do this. In the community there will be many types of activities with which the physical education staff should be familiar. There are community projects, civic and patriotic holidays, financial drives, character building agencies such as the scouts, campfire girls, young men and women associations, etc. In these the staff should be leaders.

In the community are many clubs of the improvement, civic, fraternal or service type where the physical education staff should be helpful. If the physical director belongs to and helps them, they in turn will give him assistance in crises. Recently a physical director took a stand with the principal against a very bad athletic situation in the high school. The pupils mutinied and walked out of the school. The parents were about to side with their children. The physical director and the principal went from door to door in the business section and explained the situation to some of their fellow club members of the civic organizations. The day was saved. This situation could not have been explained if the principal and physical director had not been one of them. In another instance a city council closed twenty-eight playgrounds giving as the reason lack of funds. The social organizations which the director had assisted rallied with him and demanded an appropriation. The point is—they rallied with one of their own number. In all this promotion the dramatic element should enter. We rally around that which appeals to our imagination and stirs our emotions. This is done by the R.O.T.C. They uphold at their demonstrations: discipline, citizenship and fine posture. They say nothing as to how these qualities are acquired and nothing about hours of marching, polishing of rifles and bayonet drills. They have imagination and they arouse the imagination of their audiences. As a stage spectacle an unkempt, poor postured, undernourished, poorly disciplined boy was pushed into a mill, the crank turned a few times; and out came a well dressed, stalwart, finely disciplined boy. The audience was won to the R.O.T.C. movement without questioning the results.

E. The Physical Educator Must "Speak" Other Languages. In presenting physical education it is necessary to speak the language of the public. One could start with the expression, "received my exercise pitching hay," or "Children play too much—they won't settle down to serious things." By explaining that changed conditions no longer make some of the situations possible your audience is disarmed. The presentation to the group should be made in terms of ideals, citizenship training, sacrifices, character building,

etc., and these should be tied up with current thinking. Presentations should be linked with crime and delinquency prevention, with the rapidly increasing accidents in the streets, with the strain, noise and hurry in the city, with the nervous breakdowns which characterize modern life, and with transportation which deprives individuals of proper exercise. A point of contact which always



Growth of Physical Education in Pasadena, California

interests men in service clubs or any women's groups is the safety of their children during their play hours and the providing of the children with a clean, moral atmosphere in which to live and develop. Many illustrations could be made relative to the listeners themselves. One could touch upon athletic activities for all. A good word for the dub-golfer is always popular. The wise use of leisure time, the influence of strain upon nutrition, the relationship

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of overeating, overworrying, undersleeping or underexercising are topics of present-day interest. The careful following of modern literature in the field, the special articles on education and life in the Sunday supplement of our best newspapers provide many illustrations which can be used in public talks.

III. MECHANICS FOR PROMOTION

Mechanics for promotion in the ordinary lines of publicity¹ involve: personal talks to individuals and groups, radio broadcasting, moving pictures, newspaper articles of the current news and the feature type—these to be illustrated with the right type of pictures—bulletins issued to parents, and local group demonstrations. It should of course be recognized that these are only mechanisms. The real influence will depend upon what is said. If the speech is ill chosen; if the publicity, badly written; if the demonstration, crude; promotion will have the opposite effect.

IV. SECURING ASSISTANCE IN PROMOTION

Many local and national agencies are prepared to render assistance in the field of physical education and health.

A. State Directors of Physical Education and Health. The state directors (page 152) are in a position to render a most important service. In states where no director is employed the securing of one should be made a matter of first concern.

B. National Physical Education Service. This service is maintained by the National Recreation Association, 315 Fourth Avenue, New York City, and directed by James Edward Rogers.

C. Office of Education vs. U. S. Department of the Interior, Washington, D. C. James F. Rogers and a staff of specialists are employed by this office to give assistance in the field of physical education and health.

D. National Health Council. The American Child Health Association, 370 Seventh Avenue, New York City, and other important associations are included in this group.

E. The Russell Sage Foundation. This Foundation publishes a Social Work Yearbook which gives information about the social service organizations of the country.

F. National Recreation Association, 315 Fourth Avenue, New York City, the National Tuberculosis Association, 370 Seventh Avenue, New York City, and the Charity Organization Society,

¹ Jay B. Nash, *Organization and Administration of Playgrounds and Recreation*, A. S. Barnes and Co., New York, 1928, Chapter XXXI.

105 East 22d Street, New York City, issue bibliography. Note Organization and Administration of Playgrounds and Recreation,² page 539, and the Bibliography of Bibliographies on page 472.

V. FINAL RESULTS

The growth of a profession in the last analysis rests upon service. The most effective way to promote any undertaking, a restaurant, a garage, a theater, a playground or a department of physical education is the expressions passed on by word of mouth, "It was good," "He is a good mechanic," "It was a good cup of coffee," "It was a good play," "The children are safe at the playground," or "It is a good thing Johnny has Mr. ——— as a director." The final vote will be cast by the parents. If not in this generation then by the parents of the next who are the boys and girls in school now. "That was the best part of my high school training," means a sympathetic attitude on the part of the parents and it means public sentiment for the providing of equipment and staff to make our modern cities a fit place in which children and adults may live.

PROBLEMS

1. How would you organize an objective study to determine the attitude of students toward the real importance of a physical education and health program in the schools?

2. The chairman of the Crime Commission Bureau of your city of three million has called attention to the fact that, in spite of a ten-year program of physical education and health, which has included the operation of playgrounds, delinquency has been on the increase. One of the objectives of your department is the supplying of activities which counteract delinquency. How would you answer him?

3. A committee of principals has complained to the superintendent of schools that tests have not been given in physical education activities to determine rates of progress. Tests are given in reading, writing, spelling, arithmetic, and other subjects. In a letter to you the superintendent says, "We can determine accurately results in all other subjects. Because of the fact that your physical education department cannot do the same it is not held in high esteem." How would you answer him?

PRINCIPLES

1. Physical education must be interpreted to the public in the light of modern objectives.

² *Ibid.*, p. 539.

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2. Physical education particularly needs interpretation because many of its past procedures have not appealed to the public as educational.
3. In order to promote the profession, the director of physical education must be an intricate part of the community in which he works.
4. Real progress of the profession rests upon its ability to enrich the lives of children.

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PART V. CHECKING RESULTS

CHAPTER XXI

CAN WE MEASURE PROGRESS?

The measurement of progress implies determination of where an individual is as compared to where he has been. It also implies the ability to predict the direction of the next step. The measuring of progress also assumes that there must be some agreement on the definition of progress. In other words it is necessary to determine in which direction progress lies and what progressive steps lead toward ultimate fulfillment. Measurement of progress necessitates time thinking. In other words movements must be viewed over a period of time in order to determine the direction of the trends. This is the only way that comparisons may be made which eventually become the basis of measurement. Space thinking is not sufficient as it merely gives us a tableau in which we have no help in comparing what has gone before. We must have the pageant or parade which represents a succession of events of which the tableau is merely one cross-section space picture.¹

I. MEASUREMENT OF PROGRESS NOT NEW

The attempt to estimate progress is not new as judgments were made even before definite standards were evolved. Symbols were developed for the comparison of progress in relationship to space as long, longer, longest and the various degrees of small and large, when only a small part of the world which has since been opened by transportation, telescope and microscope was within the comprehension of an individual. Even when these quantitative facts were definitely set to a scale so that comparisons could be made they completely left out of the picture qualitative measurement which always has had to be evolved through reflective thinking.²

Procedures must be established which will insure that the child moves in an orderly fashion toward the desired objectives. We are not satisfied that the reliance on judgments of progress, based on empirical thinking, leads to the most satisfactory results. The

¹ Acknowledgment is made to Professor Frank S. Lloyd for certain suggestions in the preparation of this chapter.

² *The Nature and Scope of Examinations, Interpretations of Physical Education*, Vol. II, A. S. Barnes & Co., New York, 1931, p. 97.

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age in which we live demands the application of scientific method. Judgments must be checked with consequences. Argumentation and constant repetition do not prove truth. At least three distinct types of comparison may be made. The individual may be compared with his past performances. This would enable him to compare himself now with what he was. The individual may be compared with the average of others in his class. Thus a twelve-year-old boy may know where he stands in relation to certain elements as compared with other twelve-year-old boys. These measurements represent achievement. The third method is by comparing an individual's present achievement with his ultimate capacity. This forces us to consider the intangible nature of capacity. In all probability we shall have to work back from present achievement to capacity. It appears then that the present emphasis should be put upon achievement as an objective in and of itself and as a step toward determining capacity. If we eventually establish an individual's capacity measurement then we can compare his present with his past achievement and with his capacity for achievement in that particular aspect of behavior.

II. TESTS OF ORGANIC STATUS

The work of the last decade indicates there is a possibility of determining organic classification. Various types of tests in this field have been discussed on pages 321-322, and the basis for the organic status on page 106. There is not a general efficiency but a series of specific organic efficiencies. We do not have health—but healths. Tests have been largely in the field of performance. A rich field of research is presented in the problem of determining organic capacity.

III. TESTS OF NEURO-MUSCULAR STATUS

In neuro-muscular skills we can test the efficiency of the individual. We have an accurate scale of many motor achievements at the various ages.³ Progress has been made in testing these skills because they have to do with quantity and are expressed in terms of time, space and number. We have yet to devise methods of determining neuro-muscular capacity and in the field of achievement we must develop a small group of tests which will be valid indices

³ Frederick W. Cozens, "What Ought to Be Known About the Neuro-Muscular Status of an Individual?" *Interpretations of Physical Education*, Vol. II, A. S. Barnes & Co., New York, 1931, p. 97.

to the efficiency in all skills. Any other procedure is very uneconomical.

IV. TESTS OF INTERPRETIVE-CORTICAL STATUS

Tests in interpretive status have been developed outside of the field of physical education but not in terms of its specific relationship to physical education.⁴ How far students with a high rating, shall we say in intelligence tests, are capable of interpreting clearly physical education situations with the same degree of efficiency is not known. Progress is being made and there are many opportunities for further research in our own field.

V. TESTS OF EMOTIONAL-IMPULSIVE STATUS

At present the measurement of the emotional-impulsive status of an individual is a wide-open question, although there is a great amount of interest in the subject. The following questions, which Dr. Manry feels must be asked about an individual in order to determine his emotional-impulsive status, indicate a number of variables:⁵

A. What is this individual's emotional equipment? Is he hyper-emotional, normal or hypo-emotional?

B. Is he retarded (even infantile), normally matured or precocious emotionally?

C. What specific emotions are prominent in the picture?

D. Is he emotionally balanced, is he stable or unstable?

E. What are his leading drives?

F. How strong are his drives?

The need for emotional indices for adequate classification and measurement of progress in physical education activities has been touched upon a number of times. This need is great because of the fact that most of the physical education activities are conducted in groups under circumstances where the opportunities for discovering traits and for guiding behavior are great.

⁴ Gertrude Hildreth, "What Can Be Known About the Interpretive Status of an Individual," *Interpretations of Physical Education*, Vol. II, A. S. Barnes and Co., New York, 1931.

⁵ James C. Manry, "What Can Be Known About the Emotional and Impulsive Status of an Individual?" *Interpretations of Physical Education*, Vol. II, A. S. Barnes and Co., New York, 1931.

VI. TESTS OF PERSONALITY AND CHARACTER STATUS

It is not enough to develop tests to measure an individual in any one of the above elements. It is necessary to secure a gestalt—a total picture—of the balance of the four aspects discussed as they relate to behavior. The possibility of determining such progress lies far in the future. Probably it can never be accomplished by any mechanical procedure. Progress will have to be determined through the process of reflective thinking which is based upon thorough training in the observation of individuals in clinical situations. In this case judgments may be more than mere opinions. The judgment of skilled observers may be no more relative than an individual's measure of time, space and gravitation. Physical education situations offer opportunities for clinical experience in making such judgments of progress.

VII. ESTIMATES OF PROFESSIONAL PROGRESS

It is not impossible to determine progress in some of the large aspects of physical education as, for example, the increase in the number of men and women in the field, the degrees they hold and the amount of space devoted to activities. It is possible to determine the relative importance of physical education as viewed by the public. A study of this type was reported to have been conducted in the State of California by Doctors Bagley and Kyte. The methods and answers are here indicated:

A. Questionnaires were sent out to selected leading laymen such as: doctors, lawyers, etc. Thirty-three subjects taught in the curriculum were listed. These people were asked to rate the subjects as (1) Important; (2) Very important; (3) Not important. Physical education ranked twelfth under very important.

B. Another list, unselected, being every eighty-third name in the telephone directory, was asked the same question. Physical education was again ranked twelfth under very important.

C. The fathers and mothers of one of the Oakland Junior High Schools were also circularized and they were asked to list the subjects taught in the curriculum at the present time in the order of their importance. Physical education was ranked fifth.

Dr. Thorndike conducted such an experiment in a research conference at San Jose, California, a few years ago, an account of which is here quoted:

He passed out to the entire group of approximately one thousand persons

mimeographed sheets. On these sheets there were four columns. The first column carried the names of eleven subjects or activities, for example, English composition, English literature, Latin, algebra, athletics, a skilled trade, teaching, etc. The second column was headed "Intellectual Training." The third was headed "Character Development." The fourth was "Interest." We were directed to write in the second, third and fourth columns numbers which would indicate the order in which we ranked the various subjects or activities in their influence upon us in the respects indicated at the heading of the respective columns. For example, we were to determine which one had the greatest influence upon our intellectual training and to make that number one. The one which had the least influence upon our intellectual training was to be marked number eleven. We were instructed to take the time element into consideration, that is, we were to consider the amount of influence in proportion to the amount of time spent. I need not give you the results with reference to the other subjects or activities. I need to say only that in so far as character development was concerned, athletics ranked practically at the top. You will understand that this was a relatively intellectual group. We were all teachers or prospective teachers. This makes the result even more significant than it would be with an unselected group.

The attitude of the people who graduated from our high schools and colleges twenty years ago toward physical education can be compared with those of a decade or two decades later. An indication of the possible results are seen in the attitude of the college graduates toward winning athletic teams. The opinions of the graduates of the last ten years as compared with those of the two previous decades indicated progress as the recent graduates were much more interested in recreational activities for every one than they were in winning teams. Such gauges of progress are very important.

VIII. THE FUTURE MEASUREMENT OF PROGRESS IS A PROBLEM OF RESEARCH

Future possibilities in the measurement of progress depend upon the research procedures. Individuals must be studied and activities must be studied. Some phases of research may be reduced to laboratory procedure as illustrated in the exact sciences. Much of the research must be of the case study type. The activity center must become the great laboratory for the research worker in physical education. The trained observer who is able to look beneath the surface for causes will be able to recognize trends. From these trends we may be able to generalize. However, we

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cannot and should not expect to classify people with a wide range of individual qualitative differences in a manner similar to that which we classify quantitative things.

PROBLEMS

1. The superintendent of schools is very anxious to keep the public informed about all the school activities. He has asked you, the director of physical education, for a proposed plan of the coming school year to assist him in this procedure. Outline your suggestions to him.

2. As the head of a department of physical education and health in a city of 250,000, you are anxious to interpret the meaning of your profession to the service clubs, community associations, lodges, and other organizations. You are not asked to speak before them and therefore have not been able to interest them. Outline a procedure by which you might establish contact with these organizations.

3. Believing that service is the best type of promotion, and realizing that this must be rendered by all of the special teachers in physical education, all the great teachers, and all other members of the school staff, outline a series of suggestions in a five-year program for the improvement of such service.

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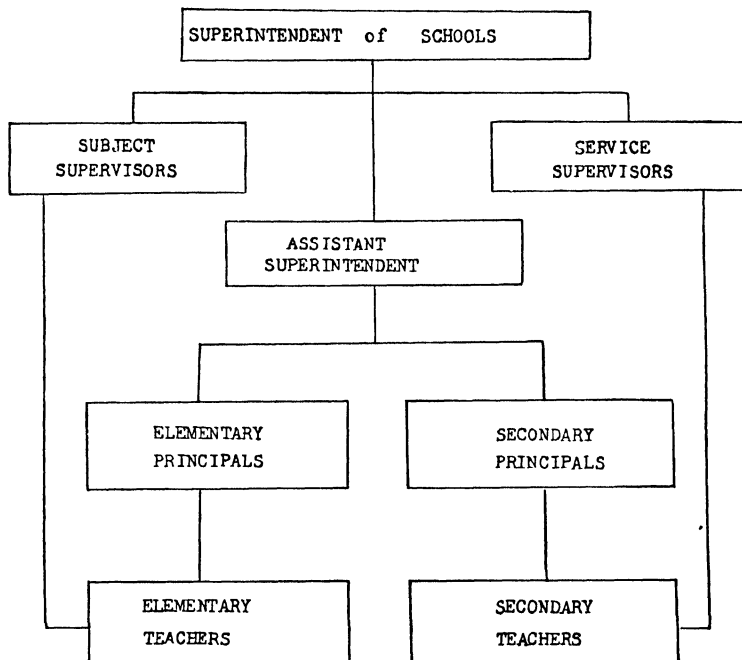
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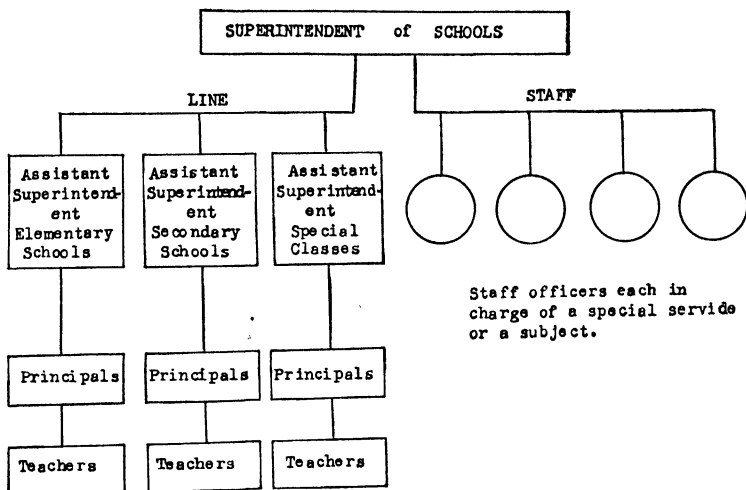
THE DUALISTIC TYPE OF SUPERVISORY ORGANIZATION



Courtesy National Education Association.

Dualistic Type of School Organization

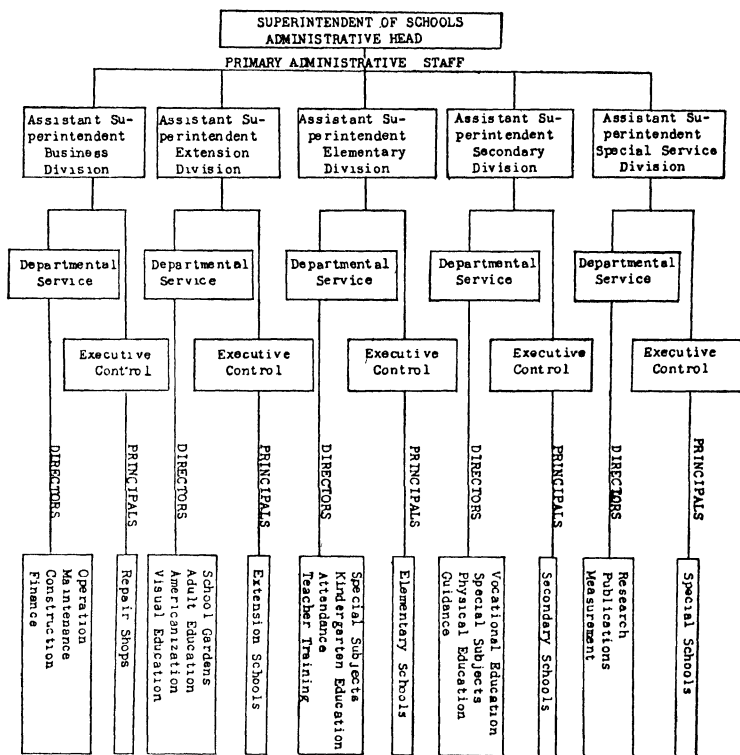
A SCHEMATIC REPRESENTATION OF LINE AND STAFF ORGANIZATION



Courtesy National Education Association.

Line and Staff Type of School Organization

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Courtesy National Education Association.

Coordinate Type of School Organization

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HIGH SCHOOL

COURSES OF STUDY

<i>Location</i>	<i>Date</i>	<i>Grade</i>
Detroit, Michigan (girls)	1929	
" " (boys and girls)	1930	7- 9
Oakland, California (physical education)	1925	10-12
" "	1927	7- 9
St. Louis, Missouri (health)	1926	7- 9
Springfield, Massachusetts (girls)	1929	7-12
" " (boys)	1929	7-12
Cleveland, Ohio	1930	7- 8

ELEMENTARY SCHOOL

COURSES OF STUDY

<i>Location</i>	<i>Date</i>	<i>Grade</i>
San Diego, California		
Oakland, California	1925	1-6
" "	1926	1, 2, 3, 4
" "	1927	5, 6
Springfield, Massachusetts	1927	K.1-3
" "	1927	4-6
New York, New York (health)	1930	1-8
" " " " (physical education)	1931	1-8
Los Angeles, California	1930	1-2
" " "	1930	3
" " "	1927	4-8
" " "	1927	(use of playground apparatus)
" " "	1928	(noon and recess activity)
Buffalo, New York		1, 2
" " "		3, 4
" " "		5, 6
" " "		7-9
" " " (handbook)		1-8
Columbus, Ohio (physical education)	1928	1-8
" " (health education)	1924	1-6
Baltimore, Maryland (health education)	1930	1-8
Long Beach, California (physical education)	1931	K-6
Seattle, Washington (hygiene and physical education)	1923	1-8
Grand Rapids, Michigan (physical education)		1-8
Lima, Ohio	1931	1-4

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